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THE RADICAL INTEGRATION OF SCIENCE, RELIGION, AND POETRY IN THE WRITINGS OF LOREN EISELEY AND RICHARD WILBUR

by

Betty Ritz Rogers

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In a postmodern world turning away from the rigid categories of the past and "the univocal literalism" (Tarnas) of the modern mind, Loren Eiseley and Richard Wilbur bridge the schism between religion and science. Their essays and poems reinvigorate the romantic reconciliation between the mind and nature, subject and object, because, like Goethe, Wilbur and Eiseley see the human mind as a product of nature and the agent of nature's self revelation.

After describing some of the ways science, religion, and poetry have informed and transformed one another and after placing Eiseley and Wilbur in the context of their life work and its critical reception, I consider three themes common to their writing. Chapter I, "Mystery, Allure, and Dread," describes their shared perception of the world's ineffable mystery, the sense that there is nothing in the world to explain the world, and the consequent drive to pursue what lures but will not be caught. An agnostic who called his life a religious pilgrimage, Eiseley created a mythic persona, a prophet wandering in the "night country" uncovering the human potential for evil. A devout Christian, Wilbur celebrates the incarnate world, giving "due regard" to what he calls "a small province haunted by the good." Chapter II, "The Mind as Nature and the Nature of Mind" explores our nearest mystery--the human mind itself--by examining Eiseley's lyrical retelling of story of evolution (The Immense

Journey) and his recounting of how the world came to be perceived as "natural," (The Firmament of Time). For Eiseley the nature of nature determines the nature of mind. Wilbur explores the nature of mind at play in metaphor ("The Writer," "Mind," "An Event") and in states of altered consciousness ("The Mind-Reader," "In Limbo"). Both Eiseley and Wilbur recognize that with the mind came what Thoreau called the "wound of time." Chapter III, "Imagination as Moral Agent," considers how the imagination is able to reach past the known, beyond the boundaries of self, and across the trouble with words. For both Wilbur ("The Fourth of July," "On the Marginal Way") and Eiseley ("The Innocent Fox," "The Star Thrower"), the imagination can discover unity amid what seems only disparity and multiplicity and create the possibility of good.

APPROVAL PAGE

This dissertation has been approved by the following committee of the Faculty of The Graduate School at The University of North Carolina at Greensboro.

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TABLE OF CONTENTS

INTRODUCTION

There is no science without fancy and no art without facts.
--Nabokov

Truth, and goodness, and beauty, are but different faces of the same All. --Emerson

Science, religion and poetry begin in wonder, and each discipline struggles to express and understand the mysteries it uncovers through its particular methodology--experiment or myth or metaphor. Is it possible at the end of the twentieth century for a religious vision of the world to coexist with an allegiance to the hard facts of science, and can they be spoken of poetically? If Emerson was right that truth, goodness, and beauty are simply different facets of the same ultimate reality, the synthesis should not only be possible but essential if we are to advance in our quest to understand the nature of things. At the beginning of the last century, Goethe, a scientist as well as a poet, believed that looking at the phenomena, not as parts but as wholes, would develop new cognitive faculties, novel perceptions, and a seeing into the nature of things. As Richard Tarnas describes it, Goethe in his *naturphilosophie* attempted "to unite empircal observation and spiritual intuition into a science of nature" which Goethe believed

would be more revealing than Newton's physics. Although he recognized like Kant "the human mind's constructive role in knowledge," Goethe overcame Kant's dualism with his vision of nature permeating everything "including the human mind and imagination":

> . . . nature's truth does not exist as something independent and objective, but is revealed in the very act of human cognition. The human spirit does not simply impose its order on nature . . . nature's spirit brings forth its own order through man, who is the organ of nature's self-revelation. (Tarnas 378).

Goethe's romantic concept reconciled mind and nature, healing the Cartesian/Kantian split between mind and body, spirit and world.

Tarnas in The Passion of the Western Mind describes a resurgence of the romantic spirit in the postmodern turn away from "the univocal literalism that tended to characterized the modern mind" toward "a greater appreciation of the multidimensional nature of reality, the many-sidedness of the human spirit, and the multivalent, symbolically mediated nature of human knowledge and experience." Tarnas believes that along with this appreciation has come "a growing sense that the postmodern dissolving of old assumptions and categories" might allow "the emergence of entirely new prospects for conceptual and existential reintegration, with the possibility of richer interpretive vocabularies, more profound narrative coherencies." Among "the remarkable changes and self-revisions that have taken place in virtually every contemporary

intellectual discipline," Tarnas finds that "the fundamental modern schism between science and religion has been increasingly undermined," thereby allowing the vigorous reemergence of "the orginal project of Romanticism--the reconciliation of subject and object, human and nature, spirit and matter, conscious and unconscious, intellect and soul" (407)

In the late twentieth century, two writers with visions that are simultaneously religious and scientific have written poetically of the world's mysteries and the individual mind's struggles to understand its reasons for being. Loren Eiseley and Richard Wilbur radically integrate science, religion, and poetry in their essays and poems. Eiseley, an anthropologist who wrote primarily natural history essays, recreated the history of evolution in works that have been called the poetry of science--lyrically beautiful prose describing the desperate efforts of an air-hungry Crossopterygian struggling to breathe in a drying swamp; or the silent revolution in the possibilities for life when, a hundred million years ago, flowering plants took over the world; or the exquisite serrations on the saber tooth of a tiger skull fossilized over forty million years. An agnostic, Eiseley has been both celebrated and vilified for his "religious vision" of life netted together in one interdependent web, of life driven to incessant change and advancing complexity by some inexorable evolutionary force. Wilbur is a poet who has a scientist's faith in the reality of the world and its discoverable truths; he is impatient with idealism that devalues the sensible world. He has a naturalist's eye

for the detail of flora and fauna and a poet's capacity for finding metaphorical relationships that make things wholes rather than just the sums of parts. A religious man, a faithful Christian, Wilbur prays that his eyes be opened to seeing the world but that he never fall into the delusive "dry disease" of believing things no more than what he sees--the prayer of a true scientist. Poetically, Wilbur is a virtuoso; his mastery of technical skills in the rhythmical creation of beauty has been resented but never doubted.

As writers, Wilbur and Eisley share three common themes: They both find the world to be infinitely mysterious, and they find that mystery to be powerfully alluring and frankly terrifying. The subject that is for them most mysterious is the human mind itself: the result of evolutionary processes, the mind and its product (or precursor) language somehow make us feel displaced, cast out of the garden world into an unnatural awareness of self and cosmos and time and death. Wilbur and Eiseley both seek redemption from this alienation through the imagination's power to recognize truth, celebrate beauty, and call human beings to a higher goodness. Although they share these concerns and both marry science, religion, and poetry in their writing, Eiseley and Wilbur, in fact, follow different tactics and produce very different world views. Eiseley creates a mythic persona who becomes the central focus of his essays. Even when he is writing about evolution or the problems of space flight or Thoreau's vision of the natural world, Eiseley, like the "old-fashioned contemplative naturalists," is telling an essentially

personal story--taking the reader on a tour of "that indefinable country which lies between the realm of natural objects and the human spirit which moves among them" ("The Enchanted Glass" 480). Because he is telling a personal story in his natural history essays and because he is profoundly melancholic and perceives himself a homeless fugitive, Eiseley's writing moves from wonder to pessimism; he becomes a lone traveler in the "night country." Wilbur, on the other hand, focuses not on himself but on the things of the world. His poems are highly wrought celebrations of the incarnate world. "Homelessly at home," Wilbur sees tremendous form and energy at work whether in a climbing vine, a flowing brook, a gathering and dispersing flock of birds. Even his darkest poems suggest that behind all is an inexorable good.

The following chapters will address the three themes common to Wilbur and Eiseley--their sense of the world as profoundly mysterious, both alluring and terrifying; their perception of the mind as an extension of nature, their puzzlement over the nature of mind and the burden of its discovery of time; and their concept of the imagination as a moral agent, discovering relationship and creating unity out of disparity. Chapter I, "Mystery, Allure, and Dread," begins with Whitehead's definition of religion as the pursuit of unattainable mystery and presents some ways of looking at the religious experience of mystery including: Otto's concept of the numinous, the *mysterium tremendum*; Eliade's focus on the efforts of *homo religiosus* to create access to the sacred in the profane

world; Heidegger's concepts of Being and Dasein's call to respond to the hail of Being as it is expressed in beings; Buber's appeal to the creation of *I* through relationship with *You*; process theology's presentation of God as attractive possibility, the divine lure enticing beings to enhanced enjoyment through correspondence with the "really real"; and Huizinga's description of the celebration of mystery through play. Each of these approaches to mystery emphasizes the importance and short-comings of language, yet Vincent Buckley points out the extraordinary persistence in the secular twentieth century of the concept of poetry as a sacred or religious act.

Eiseley described his life as a religious pilgrimage, a pursuit of the mystery he called "that vast thing sleeping in the swamps of time." In his essays he creates a mythic persona, a fugitive traveling through the night country of his own imagination--"a shifting and unmapped domain of terrors" periodically illuminated by the lightning flashes of discovery. Eiseley finds the mysteries within the mind as great as those without. Burdened by his perception of the multiform nature of humanity, he becomes a prophet inveighing against a Faustian civilization's compulsion to build an "invisible pyramid" to scientific technology and to transcend and dominate nature. Eiseley calls instead for the "paradox of return" to the green world from which human life came. Wilbur, too, finds the world profoundly mysterious but for him it is "no outer dark / But a small province haunted by the good." Wilbur's "unquenchable ontological thirst" is expressed in a pull between the immanent and the

transcendent, but he invariably chooses to celebrate the incarnate world in "humble insatiety," his reverence heightened by gaiety. Even though Wilbur finds the world to be "comely and good," he still experiences terror in the presence of that which is invicibly other, and for Wilbur, love--"the greatest mercy"--is tinged with the dread of loss. Like Eiseley, Wilbur confronts the sense of alienation felt by twentieth-century man, "a diminished thing," "unspeakably alone," who walks purposelessly, driven solely by restless urge. Unlike Eiseley, Wilbur finds in the heart's unbounded wish for life the promise of something boundless for the heart.

Chapter II, "The Mind as Nature, the Nature of Mind," describes how in the twentieth century mind has replaced soul as the subject of human concern. A number of scientists and philosophers (including Erich Harth, Francis Crick, Daniel C. Dennet, and Roger Penrose) offer theories of how the brain produces the amazing complexity of a mind. Eiseley looks for his explanations of the mind-making brain in the history of human evolution. In The Firmament of Time Eiseley reconstructs the process whereby science came to see nature as natural, produced over eons by the same forces that operate in the world today, rather than as a product of a one-time divine fiat. When nature became natural, first death then life also became natural. Paradoxically, when life becomes natural, it also becomes wondrous; the common day seems a miracle. The puzzled mind, itself a manifestation of nature, grown from a lungfish and fed on angiosperms, is left looking for its reason for being. From the

mind have grown language, writing, and the scientific revolution. Through the mind we have come to live as much in the world of imagination as the physical, external world.

Wilbur explores the nature of mind by creating poems in which the mind can observe itself at play in metaphor. The mind becomes a trapped starling looking for the sill of the world or a bat careening in a dark cave, avoiding conclusions against a wall of stone, occasionally through the "happiest intellections" correcting the cave that contains it. In other poems Wilbur suspends normal mentation by placing the persona of his poem on the borderland between just-awakening consciousness and the just-fading world of dream; there he can explore the state of the mind generally obscured by consciousness. In "The Mind-Reader" Wilbur portrays a mind which knows too much and not enough and thereby creates an extreme of the human condition. Both Wilbur and Eiseley write of the biological drive toward being, of the limitations of consciousness, of the doom of taking shape, and of the mind's most terrifying discovery--time. Eiseley and Wilbur feel with Thoreau the "wound of time"; time makes all things, but time unmakes all things. Eiseley warns darkly that "[t]he earth makes wraiths of us," but Wilbur finds in time fidelity and redemption along with inevitable decreation.

Chapter III, "Imagination as Moral Agent," considers the mind's power of redemption in time. Both Wilbur and Eiseley express explicitly and implicitly an awareness of the preconscious life of the intellect which makes possible apprehension through metaphor of

concepts that only later become accessible to logic or verbal analysis. Through poetic perception, both the poet and the scientist are able to bring new knowledge out of the preconscious void of the mind. Language and writing also make possible cultural heredity; a "new evolution," no longer simply organic, transmits and accelerates the process of learning. The future gestates in the present, and the imagination is a moral burden because we are all creators whether we like it or not. Wilbur honors the imagination when it honors the world. His poetry expresses moments of tension between the formative mind and the reality his mind insists on recognizing. Wilbur values the world's resistance to his shaping imagination; his struggle "with something powerfully other" provides the images and metaphors whereby we know the world and ourselves. Eiseley considers it the real business of the artist to seek for man's salvation. He considers the most enormous extension of vision to be the projection of self into other lives.

The imagination is able to discover relationship and create unity amid disparity. The symbols that Eiseley and Wilbur use for the imagination reflect their temperaments. For Wilbur, sunlight is imagination. For Eisley, the imagination is symbolized by water--an ominous underground current or an enveloping fog. In Wilbur's "The Fourth of July," sunlight and imagination, words and the difficulties of terms bind together Lewis Carroll, Ulysses Grant, Alice in Wonderland, Linnaeus, Copernicus, and "these states." In Eiseley's "The Innocent Fox" an enveloping fog brings together mad scientists,

a spotted dog, a wrecked boat, a dying man, and a fox cub. In "On the Marginal Way" Wilbur's imagination confronts the horrors of the human past and present and finds redemption in the world's goodness. In "The Star Thrower" Eiseley creates a myth that heretically suggests that the evolutionary struggle for survival has paradoxically bred creatures capable of altruism across the species barrier. For Eiseley and Wilbur, the imagination links conscience to cosmos.

Before turning to Wilbur and Eiseley's differing responses to their common themes, in the remainder of this introduction I will describe some of the ways science, religion, and poetry have been seen to conflict or to interrelate--in either case, informing and transforming one another. Then I will look at Eiseley and Wilbur separately, placing each in the context of his life's work and critical reception.

The Interrelationship of Science, Religion and Poetry

Science, religion, and poetry each begin in an intense awareness of the presence of remarkable, puzzling, alluring otherness that demands attention and an attempt at explanation or, at least, confrontation. Science pays that attention and attempts that explanation through exactitude based on shared tools that extend and sometimes correct human perception and on methods that are verifiable, duplicable by other scientists. Science confronts the world

with knowing--observation, cataloging, ordering, testing, theorizing, postulating. Yet as much as religion, science requires faith--from scientists as well as nonscientists. Scientists must begin with a confidence that reality exists, that it is indeed knowable, and that it is subject to discernible laws that can be discovered through systematic application of scientific methods. Scientists must also have faith in the work of other scientists--work on which they must build. In "Voice as Summons for Belief," Walter J. Ong writes that "even in the most 'objective' of fields, in actuality the word of persons is more pervasive than factual observation. Science itself cannot live save in a network of belief. Even in science, where fact is more determinative, presence is nevertheless more pervasive than fact" (92).[1]

Rabindranath Tagore described science as "mysticism in the realm of material knowledge" because "[i]t helps us to go beyond appearances and reach the inner reality of things in principles which are abstractions; it emancipates our mind from the thraldom of the senses to the freedom of reason" ("The Four Stages of Life" 149). This emancipation from "the thraldom of the senses" means that those who are nonscientitists must accept in faith facts of science which we ourselves have no capability to test and which may be in direct contradiction to ordinary observation. Believing that the earth rotates around the sun and that the earth spins on its axis demands denial of the clear evidence of our senses: We see the sun rise and move across the sky as though it rotates around the earth. We feel

no planetary spin, no movement through space. When the scientist-priests visit the holy of holies through the telescope or the electron microscope or the superconducting supercollider, non-scientists can simply receive their reports from those sacred spaces; only the elect, those annointed through special knowledge and experience, are allowed to peep behind the veils of the atom and the cosmos to come back and report what they have found there. Even then, they often speak in tongues to the uninitiated.

Poetry may mean not just the art of verse making but the creative use of language in general--in poetry and in prose. Or poetry may have an even broader meaning. Jacques Maritain defines "Poetry" as "that intercommunication between the inner beings of thing and the inner being of the human Self which is a kind of divination . . . . Poetry, in this sense, is the secret life of each and all of the arts" (Creative Intuition in Art and Poetry 3).[2] Verbal poetry confronts reality with attention, the attention of a creative imagination--a combination of intellect, sensibility, emotion, and the urge to play--which tries to capture within the frame of words and rhythm and meter the exactitude of metaphor and image that conveys both the consciously perceived world (including self) plus those intuitions which are in fact not conscious nor sayable--what Colin Falck calls "extra-" or "pre-linguistic" awareness. To speak what can be said and what cannot be said, poetry requires the paradoxes of diction precise in its imprecision, images clear in their ambiguity, and the sense of a unifying imagination that holds

disparate things together yet separate. The poet acknowledges, honors, and responds to the mystery of creation with creation.

Originating in the nonrational aspects of the human psyche, religions attempts to bind reality into a unified metaphysical vision by addressing the ultimate question, felt as mystery but expressed in reason as, "Why is everything?" Attempting to explain the origin, order, and purpose of all existence, religions manifest the quest for meaning which grows out of the seemingly unique human consciousness, the self-awareness that makes possible self-transcendence--mentally stepping outside of our ongoing individual lives to consider them in the context of their places in some greater meaning. Through myth and ritual, religions bind people in communities of shared belief and thereby seek to reconcile the estrangement often felt both within the self and between self and others and between self and cosmos. Religions confront the profound dread and awe experienced as consciousness of the numina, the sensation of the presence of terrible overpowering otherness. Religions celebrate mystery. By defining the nature of the good, religions offer guidance in ways to live our lives. Religions offer explanations and consolation for the inevitable fact of death. Religion for the individual offers a way of being in the world that binds nature, self, death, good, evil, mystery, longing, dread into a usable fiction. For the romantic spirit, religion becomes a version of Negative Capability--the capacity to be "in uncertainties, Mysteries,

doubts, without an irritable reaching after fact and reason" to relieve the existential angst.

Though they have often seemed to operate in isolation or outright opposition, science, religion, and poetry have actually informed and transformed one another, and they intertwine within both the individual and the culture to create a fabric of being. A change in the concept of reality described by any one requires adjustments in the world views expressed by the others. They influence one another in complex and reciprocal ways. For example, Stephen F. Mason writes that science had its historical roots in two primary sources--the technical tradition which passed practical skills from one generation to another and "the spiritual tradition through which "human aspirations and ideas were passed on and augmented" (A History of the Sciences 11). Sometimes the spiritual tradition augmented ideas in ways that served religious ends rather than fostering the study of nature. The classic example is Plato's articulation of a theory of natural philosophy deduced from his theological views. Having determined that the circle was the most perfect form, Plato decreed that the movements of the celestial bodies--"divine and noble beings"--must be circular. He thereby established a precept that bound astronomers for 2000 years to a concept of circular orbits that crippled their attempts to reconcile astronomical observations with their inherited preconceptions of the structure of the cosmos.

Tarnas in The Passion of the Western Mind explains how the Protestant Reformation, "so intensely and unambiguously religious," nevertheless fostered the rise of science. Luther's emphasis on the authority of the individual conscience in the interpretation of scriptures which (for some) overthrew the theological authority of the Catholic Church also opened the door to "the vagaries of private doubt and secular thinking" (240). Luther vehemently rejected the attempts by Scholastic theology to achieve "natural revelation" through human reason in its analysis of the natural world, because he believed that scripture alone could provide "the certain and saving knowledge of God's ways" (241). Tarnas says that "[t]he Reformation's restoring of a predominantly biblical theology against a Scholastic theology helped to purge the modern mind of Hellenic notions in which nature was permeated with divine rationality and final causes"--ironically thereby supporting the development of a new science of nature (241).

> The increased distinction made by the reformers between Creator and creature--between God's inscrutable will and man's finite intelligence, and between God's transcendence and the world's contingency--allowed the modern mind to approach the world with a new sense of nature's purely mundane character, with its own ordering principles that might not directly correspond to man's logical assumptions about God's divine government. The reformers' limiting of the human mind to a this-worldly knowledge was precisely the prerequisite for the opening up of that knowledge. (241)

In so doing, the Reformation led to consequences that would have appalled Luther:

> By disenchanting the world of immanent divinity, completing the process initiated by Christianity's destruction of pagan animism, the Reformation better allowed for its radical revision by modern science. The way was then clear for an increasingly naturalistic view of the cosmos, moving first to the remote rationalist Creator of Deism, and finally to secular agnosticism's elimination of any supernatural reality. (241)

Protestantism's insistence that truth was finally and fully revealed in the Word of God and its rejection of what it perceived as the Catholic tradition's distortion of primal truth fostered "a new stress on the need to discover unbiased objective truth, apart from the prejudices and distortions of tradition," thereby supporting the growth of "a critical scientific mentality"--which eventually was turned on the Word itself (242). As Tarnas describes it, when the Protestant Reformation inadvertently opened the door to science, it also let in the agent of its own eventual subversion. In The Varieties of Religious Experience William James states the consequences succinctly by recalling Emerson's observation that "Luther . . . would have cut off his right hand rather than nail his theses to the door at Wittenberg, if he had supposed that they were destined to lead to the pale negations of Boston Unitarianism" (330).

Ironically, the original act of the scientific revolution grew out of religious faith and a compelling need for beauty. Copernicus, the Catholic canon of Frauenburg, became appalled at the "monster"

which had evolved out of the efforts to maintain the circular orbits of the stable Aristotelian/Ptolemaic geocentric cosmos in the face of clearly contradictory observations. The Greek/Christian system had become encrusted with epicycles, eccentrics, deferents, etc. as successive astronomers tried to explain away the discrepancies between observation and tradition. As described, the cosmos had become "an inelegant and overburdened conception which, despite all the complicated ad hoc corrective devices, still failed to account for or predict observed planetary positions with reliable accuracy" (Tarnas 248). Copernicus's conviction that God could not have made such a botch of his creation caused him to search for a better description of the workings of the cosmos.

> It would seem to be above all Copernicus's participation in the intellectual atmosphere of Renaissance Neoplatonism--and specifically his embrace of the Pythagorean conviction that nature was ultimately comprehensible in simple and harmonious mathematical terms of a transcendent, eternal quality--that pressed and guided him toward innovation. The divine Creator, whose works were everywhere good and orderly, could not have been slipshod with the heavens themselves. (Tarnas 249)

Reverently, Copernicus offered with "greater conceptual elegance" a heliocentric universe in which the earth moved.

However, what began in faith in the aesthetics of the Creator ended on the Index of Forbidden Books. Copernicanism came to be

seen as "a fundamental threat to the entire Christian framework of cosmology, theology, and morality" (Tarnas 253).

> Ever since the Scholastics and Dante had embraced Greek science and endowed it with religious meaning, the Christian world view had become inextricably embedded in an Aristotelian-Ptolemaic geocentric universe. The essential dichotomy between the celestial and terrestrial realms, the great cosmological structure of Heaven, Hell, and Purgatory, the circling planetary spheres with angelic hosts, God's empyrean throne above all, the moral drama of human life pivotally centered between spiritual heavens and corporeal Earth--all would be cast into question or destroyed altogether by the new theory. (Tarnas 253)

Copernican science seemed to remove the Earth from the center of God's concern, and the "absolute uniqueness and significance of Christ's intervention into human history seemed to require a corresponding uniqueness and significance for the Earth" (Tarnas 253-254). Copernican cosmology, later improved upon by Galileo and Kepler, appeared to rob Earth of that uniqueness.

At the end of the last century, with science in the ascendent as the way of explaining the world, William James suggested using it to study religion. In The Varieties of Religious Experience, James took an inductive, scientific approach to the study of religions; he thought the methods of science could help clarify the nature of what is perceived as religious. Defining religion not as institutions, dogmas, theologies, and rituals but as "*the feelings, acts, and experiences of individual men in their solitude, so far as they apprehend themselves*

to stand in relation whatever they may consider divine," James collected and surveyed personal religious experiences of "the unseen," of conversion, of saintliness, of mysticism, etc. in order to discover among them what was religious--"what nobody can possibly feel tempted to call anything else" (31, 39). In his chapter on "The Religion of Healthy-Mindedness," James concludes that the experiences considered "plainly show the universe to be a more many-sided affair than any sect, even the scientific sect, allows for" (122). Anticipating the twentieth century's recognition that no observation is unbiased and each hypothesis is theory-laden, James asks, "What in the end, are all our verifications but experiences that agree with more or less isolated systems of ideas (conceptual systems) that our mind has framed?" (122).[3] If that is so, James demands to know, " . . . why in the name of common sense need we assume that only one such system of ideas can be true?" Asserting that "[t]he obvious outcome of our total experience is that the world can be handled according to many systems of ideas," each with some profit and some loss, James says that it becomes evident that:

> . . . the science and the religion are both of them genuine keys for unlocking the world's treasure-house to him who can use either of them practically. . . . neither is exhaustive or exclusive of the other's simultaneous use. And why, after all, may not the world be so complex as to consist of many interpenetrating spheres of reality, which we can thus approach in alternation by using different conceptions and assuming different attitudes, just as mathematicians handle the same numercial and spatial facts by geometry, by analytical geometry, by

> algebra, by the calculus, or by quaternions, and each time come out right? (122-123)

Subsequently, James proposed applying the tools of science and philosophy to unlock the puzzles of religion by creating "a critical Science of Religions." Philosophy would "eliminate the local and accidental" from definitions of the divine, remove "historic incrustations" from dogma and worship, and eliminate doctrines found to be absurd or incongruous in light of the advances of natural science (Varieties of Religious Experience 455). Having sifted "unworthy formulations" from "a residuum of conceptions" that were at least possible, philosophy could then test the resulting hypotheses, discarding some and championing others. By refining definitions and separating core tenets from "innocent overbelief and symbolism," philosophy could mediate among believers in an effort to establish consensus of opinion. Such a science of religions would have to depend for its data "on facts of personal experience, and would have to square itself with personal experience through all its critical constructions. It could never get away from concrete life, or work in a conceptual vacuum" (Varieties of Religious Experience 456). Like every other science, the science of religions would have to confess:

> . . . that the subtlety of nature flies beyond it, and that its formulas are but approximations. Philosophy lives in words, but truth and fact well up into our lives in ways that exceed verbal formulation. There is in the living act of perception always something that glimmers and twinkles and will not be caught, and for which reflection comes too late. (456-457)

Other poets, scientists, and religionists have disagreed about whether their various strategies for dealing with reality are totally incompatible or, in fact, complementary. Emerson believed that science would either stimulate poetry to new heights or obliterate it: Observing that "[n]atural science . . . is dimming and extinguishing a good deal that was called poetry," Emerson concluded that "[t]hese sublime and all-reconciling revelations of nature will exact of poetry a correspondent height and scope or put an end to it" (Letters 6.63). Walt Whitman was confident that poetry would prevail. In his Preface to Leaves of Grass, Whitman, a religious poet, ("the most inclusive of mystics," according to Wilbur) called science "the handmaid of poetry" and declared that "[e]xact science and its practical movements are no checks on the greatest poet but always his encouragement and support." For Whitman the matter of science was the stuff of poetry:

> The sailor and traveler . . . the anatomist chemist astronomer geologist phrenologist spiritualist mathematician historian and lexicographer are not poets, but they are the lawgivers of poets and their construction underlies the structure of every perfect poem. (42)

From such men, " . . . always of their father-stuff must be begotten the sinewy races of bards" (Preface 42). Yet this mystic who believed that science was not inimical to poetry but would in fact

make poetry possible was a great trouble to traditional religion. William Heyen says that Whitman, "the first great American poet . . . buried orthodoxy like a landslide, and we have had no poetry of the 'figural imagination' since, no poetry that relates the entire human drama, all of history to one great myth cast with gods and replete with legends that tell of man's beginning, purpose, and destiny" ("On Richard Wilbur" 628).

In contrast to Whitman's fulsome embrace of science, Edgar Allan Poe scorned that "rectangular obscenity" of mathematical reason and considered scientific rationalism and materialism to be inevitable manifestations on a planet that had fallen away from the unity and beauty of the divine. His "scorn of all things present" included philosophy and didacticism. Poe considered it the poet's task to induce a suspension of the outward consciousness and substitute a visionary contemplation of supernal beauty. In "The Poetic Principle," Poe identifies Alfred Tennyson as "the noblest poet that ever lived" because Tennyson is "so little of the earth, earthy" (388). In Eureka, Poe attacks what he considers natural science and philosophy's crawling, circuitous routes to truth; he reduces Aristotle, the father of deductive reasoning, to Aries Tottle (the Ram) and Bacon, the father of induction, to the Hog, declaring that "Baconian" was simply "'an adjective invented as equivalent to Hog-ian, and at the same time more dignified and euphonious'" (12). Quoting from a letter dated *2848 A.D.* and found floating corked in a bottle "on the *Mare Tenebrarum*--an ocean well described by the Nubian

geographer Ptolemy Hephestion, but little frequented in modern days unless by the Transcendentalists and some other divers for crotchets," Poe celebrates imaginative leaps as the true scientific method. He points out that Newton deduced the laws of gravitation from the laws of Kepler but that Kepler admitted that he had *guessed* his postulates. Thus, the laws on which Newton based the theory of gravitation, the foundation of classical physical science--"these vital laws Kepler *guessed*--that is to say, he *imagined* them" (20).

Poe anticipated by more than a hundred years Arthur Koestler's view of the process of scientific discovery. In The Sleepwalkers: A History of Man's Changing Vision of the Universe, Koestler declares that "[t]he history of cosmic theories . . . may without exaggeration be called a history of collective obsessions and controlled schizophrenias; and the manner in which some of the most important individual discoveries were arrived at reminds one more of a sleepwalker's performance than an electronic brain's" (15). Koestler considered that both science and religion arise from a common source of inspiration--the creative imagination.

I. A. Richards, however, feared that the rise of science might be the death of poetry. Richards describes the "the central dominant change" in the intellectual background of modern times to be "the *Neutralization of Nature*, the transference from the Magical View of the World to the scientific, a change so great that it is perhaps only paralleled historically by the change from whatever adumbration of a world-picture preceded the Magical View itself" (Poetries and

Sciences 50-51). Richards defines the "Magical View" as "the belief in a world of spirits and powers which control events, and which can be evoked and, to some extent, controlled themselves by human practices. The belief in inspiration and the beliefs underlying ritual" are representative of this view (51). As Richards saw it, this Magical View fell with the extension of man's knowledge and control over nature. Richards believed that "[t]here is some evidence that poetry, together with the other arts, arose with Magical View" and was therefore concerned that "[i]t is a possibility to be seriously considered that poetry may pass away with it" (51).[4]

Elizabeth Sewell has no such worries about science destroying poetry; she sees them of a like substance, of similar origins. Sewell, in her book The Orphic Voice: Poetry and Natural History, describes both *poetry and science* as "activities in which thinker and instrument combine in some situation which is passionately exciting because it is fraught with possibilities of discovery" (14). Denying the four-hundred-year-old presumptions of antitheses between science and poetry, mathematics and words, intellect and imagination, Sewell declares that "[t]he human organism, that body which has the gift of thought does not have the choice of two kinds of thinking. It has only one . . ." (19). For Sewell, discovery in both science and poetry is "a mythological situation in which the mind unites with a figure of its own devision as a means toward understanding the world" (20). She points out that Michael Polanyi in Personal Knowledge has demonstrated that just as "any good poem

surpasses its writer's powers of exegesis" so do scientific hypotheses as well as language in general (22). Taking a position similar to Sewell's, Jacob Bronowski declares that "[t]he act of creation is . . . the same in science as in art" (18). He believed that creativity comes when a chance is offered to the highly active and inquiring mind looking for hidden likenesses (19). All great acts of imagination, in both the arts and science, Bronowski says, "convince us because they fill out reality with a deeper sense of rightness" (31).

George Santayana says that religious doctrine inevitably conflicts with science and becomes confused and incoherent when it pretends to deal with matters of fact and seeks sanctions "in the sphere of existence." While Sewell finds the similarity between science and poetry, Santayana says that it is *religion and poetry that are identical in essence* and that they "differ merely in the way in which they are attached to practical affairs" (Interpretations of Poetry and Religion 3). According to Santayana, "[p]oetry is called religion when it intervenes in life, and religion, when it merely supervenes upon life, is seen to be nothing but poetry." (3). Unlike poetry, religion reacts directly upon life and is a factor in conduct: "Our religion is the poetry in which we believe" (20). The value of religion, like that of poetry, is "in its ideal adequacy, in its fit rendering of the meanings and value of life" (3).

Teilhard de Chardin attempted to build a bridge across the chasm that Santayana saw irrevocably separating religion and science, faith and reason. In The Phenomenon of Man, Teilhard

offers a Christian teleological perspective on evolution whereby the incarnation becomes one of the inevitable steps of Christogenesis. He describes the process of evolution as nature becoming progressively aware, increasingly conscious of itself. He believed that ever-advancing biological complexity and cephalisation led over eons to hominisation and the development of the "noosphere," the sphere of mind which is now superimposed upon the biosphere. In his introduction to The Phenomenon of Man, Sir Julian Huxley writes that through Teilhard's combination of wide scientific knowledge, deep religious feeling, and rigorous sense of values, the Jesuit theologian and distinguished palaeontologist "has both clarified and unified our vision of reality":

> . . . it is no longer posssible to maintain that science and religion must operate in thought-tight compartments or concern separate sectors of life; they are both relevant to the whole of human existence. The religiously-minded can no longer turn their backs upon the natural world, or seek escape from its imperfections in a supernatural world; nor can the materialistically-minded deny importance to spiritual experience and religious feeling. (26)

Based on his concept of myth, Colin Falck advances Santayana's position on the essential identity of poetry and religion by claiming that literary texts are, in fact, religious scriptures and that theology itself must become an aspect of literary criticism (Myth, Truth and Literature 132).[5] Falck believes that while Christianity has crumbled into "equality of disbelief with other myths," myth itself "as a mode

of insight into human life" has achieved a higher status. He says that it is to poetry and literature that we have increasingly looked "for a *re-mythologizing* of our spiritual landscape":

> With the increasing, if still tacit, recognition of myth as the primal form both of perception and of language, and with the decline during the modern period of any general acceptance of philosophical *arguments* in support of the orthodox religions, the tendency to see imaginative literature and its 'epiphanies' as special, sacred or sacralizing manifestations within a de-sacralized world--a tendency which began with the Romantic reaction against the mechanistic philosophies of the seventeenth and eighteenth centuries--has persisted and grown. (Myth, Truth and Literature 134)

Finding more truth than T. E. Hulme himself recognized in his comment that the poetry and criticism of Romanticism were "spilt religion," Falck says that "*all* poetry . . . is 'spilt religion'" and that "poetry is religion *properly so spilt*" (135). Falck says that properly spilling religion will correct the fact that "[t]raditional religion . . . has always dogmatically privileged certain myths . . . and has thereby prejudged questions of truth in a way that largely precludes critical discussion" (122).

Falck subscribes to and endeavors to provide a philosophical basis for Wallace Stevens' assertion that poetry must "take the place / Of empty heaven and its hymns" and Stevens' proposal that "[a]fter one has abandoned a belief in God, poetry is that essence which takes its place as life's redemption." Falck finds that Stevens in his later work is "essentially religious" because he regards fictions "as a

discovering of order in the world rather than an imposing of order on it" (144). Falck suggests that "if we are now to accept the need for a remythologization of religion in terms of the myths or stories which are authentically accessible to our imagination, then the only religious *scriptures* we shall need . . . will be the poetry or literature to which our own culture gives us access" (144).

Falck describes myth as "a form of integrated perceptual awareness which unites 'fact' and 'explanation,' because it is a form of awareness in which fact and explanation have not yet become disunited" (117). He says myth is "a mode of perception or of vision rather than a mode of explanation" and should not be considered failed attempts to explain natural phenomena without the benefit of science. Fictions reveal reality in ways which do not "involve their being literal descriptions or representations of reality" (127). In fact, Falck believes myth is necessary to put our comprehension of the world together after science has taken it apart:

> Natural science itself . . . is a mode of comprehension which must for its own purposes be as far as possible purged of the emotional or spiritual peculiarities of human perception: when nature has for these special purposes been dissociated into 'facts' and theoretical 'explanation' of facts, it will only be poetry (in the sense of the creative use of language in general--which in Shelley's words 'comprehends all science')--which will allow us to resconstitute the unities that have been lost and to reinstate our human vision.
>
> (Myth, Truth and Literature 117-118)

Falck believes that since "all knowledge must be based in bodily awareness . . . 'explanations' which embrace the peculiarities of human emotion and of the human spirit must be more profound than explanations--such as natural-scientific ones--which do not" (119). Even a scientific world would still seem to require myth in order to have meaning: "the configurations within which human life can most fundamentally be understood as falling--the patterns in terms of which it can most satisfyingly be *seen*--may in the end need to be understood as a matter not of scientific order but of a poetic order which is inherently mythic" (119).

Leonard Schlain in Art and Physics suggests that the poetry of visual art actually forecasts and prepares the culture for future discoveries of science. He claims that revolutionary art has always served the function of preparing the future: ". . . the radical innovations of art embody the preverbal stages of new concepts that will eventually change a civilization" (17). Schlain says that "a new way to think about reality begins with the assimilation of unfamiliar images. This collation leads to abstract ideas that only later give rise to a descriptive language" (17). Schlain believes the artist creates the necessary visual images that precede the mental abstractions and descriptive language. Schlain describes clairvoyant art as a "Distant Early Warning system of the collective thinking of society. Visionary art alerts the other members that a conceptual shift is about to occur in a thought system used to perceive the world" (18). He finds in the revolutionary artist's vision "a peculiar prescience that precedes the

physicist's equations. Artists have mysteriously incorporated into their works features of a physical description of the world that science later discovers" (18).[6]

> The artist, with little or no awareness of what is going on in the field of physics, manages to conjure up images and metaphors that are strikingly appropriate when superimposed upon the conceptual framework of the physicist's later revisions of our ideas about physical reality. Repeatedly throughout history, the artist introduces symbols and icons that in retrospect prove to have been an avant-garde for the thought patterns of a scientific age not yet born. (19)

Describing the imagination as "the faculty we use to grasp the nature of the 'out there,'" Schlain says that both "[r]evolutionary art and visionary physics attempt to speak about matters that do not yet have words" (20).[7]

Schlain also describes how scientists and artists work unknowingly in tandem, making simultaneous discoveries in fields that both disciplines had before slighted or ignored. In the last half of the nineteenth century science and art both became obsessed with light and its constituent/product color. After Delacroix, Turner, and Friedrich opened the shutters to let light fall on what had been the "brown sauce" school of painting, the impressionists and post-impressionists emancipated color, using it brilliantly in new and vital ways:

> Monet was the first to immerse the viewer in the delight of color for color's sake. Seurat created designs by juxtaposing

> minute dots of pure color. Gauguin set the mood of a painting with color. Van Gogh imbued color with a reverberating vitality. Cezanne substituted color for the crucial elements of line, shading, and perspective. (176)

Coincidently, physicists during the period from 1860 to the 1920's "stared in childlike wonder at the spectrum of colors" and made their own discoveries: "the composition of the stars; the fusion of magnetism, electricity, and light; the genesis of quantum mechanics; the structure of the atom; and the expansion of the universe" (179). Schlain describes this "apotheosis of light" in terms of art, science, and religion:

> Einstein's realization that light (which is color) is the quintessence of the universe paralleled the apotheosis of light by the artists. Before Einstein made his discovery, Claude Monet announced that 'the real subject of every painting is light.' Echoing this statement, Einstein later commented, 'For the rest of my life I want to reflect on what light is.' Both artist and physicist confirmed a great biblical truth. In Genesis, God's grand opening act was the creation of light. He did not say, 'Let there be space' or 'Let there be time.' He said, 'Let there be light.' (179)

Schlain hopes for an integration of art and physics that would "kindle a more synthesized awareness which begins in wonder and ends with wisdom" (24).

Science, like religion and poetry, adds not only to the knowledge of this world but also to its mystery. Albert Einstein in an essay published in Living Philosophies wrote that "the most

beautiful thing we can experience is the mysterious." He described the center of true religiousness to be the knowledge "that what is impenetrable to us really exists, manifesting itself as the highest wisdom and most radiant beauty which our dull faculties can comprehend only in the most primitive forms" (6). For Einstein, who could not imagine a judging God simply reflecting human frailty and who had no faith in an afterlife, it was enough "to contemplate the mystery of conscious life perpetuating itself through all eternity, to reflect upon the marvelous structure of the universe which we can dimly perceive, and to try humbly to comprehend even an infinitesimal part of the intelligence manifested in nature" (6-7).

If as Sir Thomas Browne wrote, "Nature is the art of God," science is both critical exegesis and religious meditation. Stephen Hawking writes of the search for a complete unified theory which would reconcile the inconsistencies between the general theory of relativity and quantum mechanics:

> . . . there may well be only one, or a small number, of complete unified theories, such as the heterotic string theory, that are self-consistent and allow the existence of structures as complicated as human beings who can investigate the laws of the universe and ask about the nature of God.
>
> (Brief History 174)

Hawking says that if we do ever discover such a complete theory and it becomes accessible in broad priniciple to everyone, we will then be left to the discussion of "What is it that breathes fire into the

equations and makes a universe for them to describe?" and "Why?"(174). Emily Dickinson observed that "the unknown is the greatest need of the intellect"; perhaps it is equally true that the searching intellect is the greatest need of the unknown.

Arthur G. Zajonc, a professor of physics at Amherst who specializes in the study of quantum optics, expresses a need for art to aid science in finding the images that will allow us to understand and be able to articulate the phenomena that quantum physics can formulate mathematically. Zajonc says that new science requires new modes of understanding--new metaphors and images--and he calls on art to aid "the project of creating the requisite faculties adequate to the understanding of these newly emergent phenomena of science" ("Light and Cognition" 112). Zajonc explains that cultural paradigms both create possibilities for thought within traditional patterns but also hinder the development of new thinking modalities when the observer is faced with phenomena that cannot be explained by the old science, the old ways of understanding the world. Paradigms shape perceptions:

> The textures and patterns of thought in which we now live are the outcome of hard fought, spiritual battles that established a general mode of discourse, understanding, feeling, and action. While we may be unconscious of their history, these traditions are part of us and shape our habits of thought and understanding, our very seeing. In our own day, contemporary spiritual battles and new modes of knowledge are emerging. These will require fresh patterns of thought, unknown metaphors, and will also one day shape a future landscape.
> ("Light and Cognition" 112)

To a large extent our seeing is structured by our thinking: "Our manner of thinking limits and even forms the very world we experience"("Light and Cognition" 125).

In his essay "Light and Cognition," Zajonc says that technology, in fact, became image after the invention of the mechanical clock around 1300. The mechanical clock then came "to shape the imagination and to provide a basis for understanding the natural world" (114). Galileo united "terrestrial and celestial mechanics" and thus provided the basis for the Deist concept of a clockwork universe superintended by God, the master clockmaker. Today, however, science can no longer explain newly observable phenomena in classical terms based on Newtonian mechanics. Zajonc says that "there [are] objects whose nature is so radically non-mechanical that they defy all honest attempts to include them in the catalog of machines" (117). Light itself is "unambiguously nonmechanical." Zajonc describes experiments which set out to test definitively the nature of light--whether it is a wave or particle--and which result in findings that are logically impossible from the viewpoint of classical physics. Discovering that a single indivisible photon may act as a particle or a wave depending on which result the experimenter is testing for, physicists conclude that during the experiment the light exists in "an ambiguous quantum 'superposition' state" (120). Zajonc recognizes that saying that the light is in a superposition state explains nothing: "Invoking such a phrase does not . . . constitute an

explanation . . . .*Such language simply locates that which we do not understand*" (120; emphasis added). Though the phrase "quantum position state" has a precise mathematical meaning, "[u]nderstanding appears to require an image . . . " (121).[8] Zajonc says that the phenomena that are unexplainable by the old mechanical paradigm are multiplying: "Many of the solid-state electronic devices common today, from television to calculator, operate because the mechanical paradigm fails" (121).

Zajonc believes that science and the civilization at large need the cognitive capacities of artists to provide the images necessary for understanding the new science, and he presents an example of an artist with a unique and unifying concept of scientific methodology. Goethe, the poet/savant who considered his greatest work not to be Faust but his scientific study of the theory of color, saw the possibility for developing "new cognitive faculties . . . whose emergence would bring with them the perception of novel and hitherto unseen coherences within nature" (Zajonc, "Light and Cognition" 125). Goethe articulated a distinctive methodology and objective for science. His process of investigation passed through three stages--from empirical observation of a phenomenon to the analysis of the scientific phenomenon obtained through experiments under differing conditions and finally to the "pure phenomenon," a synthesis of the preceding observations and experiments. Emphasizing the "pure" or "archetypal phenomenon," Goethe's method avoided "abstract, mathematical representations of the

phenomenon under study" and questioned the conditions under which phenomena appear rather than their causes. For Goethe, the archetypal phenomenon was the culminating point of investigation, the moment in which "'the human mind can come closest to things in their general state, draw them near, and so to speak, form an amalgam with them'" (qtd. in Zajonc, "Light and Cognition" 124). According to Zajonc, Goethe's concept of theory says that "[t]o understand, one must see, envision, behold in the mind as well as in the external world. . . . By 'making itself utterly identical with the object' one's experience becomes true theory" (124). Goethe admonished, "'Let us not seek for something behind the phenomena --they themselves are the theory'" (qtd. in Zajonc 125).

Strict attention to the phenomena as theory, Goethe believed, would lead to the development of new cognitive capacities making possible, after passionate inquiry, moments of understanding that would come as aesthetic experiences of "seeing into nature." Zajonc finds in Emerson a similar vision of the kinship between the aesthetic moments experienced both in science and poetry:

> For Emerson, the poet's task was nothing more than this: To walk within nature not as a spy, but as the transcendency of her own being, and so to articulate in words what she performs for and within us. Emerson realized the kinship between artistry and the exhilarating moment of scientific discovery when he wrote: 'And never did any science originate but by a poetic perception.' ("Light and Cognition" 126)

New theories in physics change our perceptions of the nature of reality when they are transformed by art into terms and images we can understand. Zajonc's plea for artists to aid science by supplying appropriate metaphors is partly answered in Tom Stoppard's Arcadia. In a play that zestily intermixes landscape theory, the Second Law of Thermodynamics, and the politics of academic publishing, Valentine joyfully explains to Hannah the wonder of living amid the chaos theory of late twentieth-century physics:

> . . . . The unpredictable and the predetermined unfold together to make everything the way it is. It's how nature creates itself, on every scale, the snowflake and the snowstorm. *It makes me so happy. To be at the beginning again, knowing almost nothing.* People were talking about the end of physics. Relativity and quantum looked as if they were going to clean out the whole problem between them. A theory of everything. But they only explained the very big and the very small. The universe, the elementary particles. *The ordinary-sized stuff which is our lives, the things people write poetry about--clouds--daffodils--waterfalls--and what happens in a cup of coffee when the cream goes in--these things are full of mystery, as mysterious to us as the heavens were to the Greeks.* We're better at predicting events at the edge of the galaxy or inside the nucleus of an atom than whether it'll rain on auntie's garden party three Sundays from now. Because the problem turns out to be different. We can't even predict the next drip from a dripping tap when it gets irregular. Each drip sets up the conditions for the next, the smallest variation blows prediction apart, and the weather is unpredictable the same way, will always be unpredictable. When you push the numbers through the computer you can see it on the screen. The future is disorder. A door like this has cracked open five or six times since we got up on our hind legs. *It's the best possible time to be alive, when almost everything you thought you knew is wrong.* (48; emphasis added)

According to chaos theory, "tiny differences in input [can] quickly become overwhelming differences in output--a phenomenon given the name 'sensitive dependence on initial conditions.'" The concept has been translated into a metaphor known "only half-jokingly" as the "Butterfly Effect"--"the notion that a butterfly stirring the air today in Peking can transform storm systems next month in New York" (Gleick 8). Chaos introduces creative chance into the process of entropy and order arises. James Gleick writes:

> Believers in chaos--and they sometimes call themselves believers, or converts, or evangelists--speculate about determinism and free will, about evolution, about the nature of conscious intelligence. They feel that they are turning back a trend in science toward reductionism, the analysis of systems in terms of their constituent parts: quarks, chromosomes, or neurons. They believe that they are looking for wholes. (5)

Goethe and Emerson would be pleased: Science, through poetic perception has begun to see the phenomena as the theory and has fallen again into wonder.

Loren Eiseley

Loren Corey Eiseley was born in Lincoln, Nebraska, on September 3, 1907, the son of Daisy Corey Eiseley and Clyde Edwin Eiseley. Daisy had begun to lose her hearing as a child and by the time her only son was born, she was very nearly deaf. A

combination of circumstances and personality--including the isolation of her silent world, her difficulty communicating, the strains of poverty, her private frustrations as "an untaught prairie artist," a familial streak of madness, two unhappy marriages--produced a bizarre, paranoid woman of violent passions and illogical whims who became a lifelong curse on her only child's happiness. Clyde, Loren's father, was a hardware salesman who in an uncertain economy found it difficult to keep a job and support his family. A loving father idealized by his son, Clyde bore his wife's rampages as best he could and asked Loren to do the same. Clyde had a beautiful, rich baritone voice and enjoyed reciting long speeches from Shakespeare. Eiseley would remember with pride and hope his father's letter saying the boy was "a genius but moody." Clyde's protracted and painful dying from abdominal cancer left his son bereft, spiritually homeless, and with a fear of death that expressed itself as a lifelong insomnia. From his mother Eiseley received an artist's eye for the beauty of nature; from his father he learned to love the sound of words. From their troubled family life, he acquired a profound pessimism, the sense of being an alienated outsider, and a guarded, highly sensitive nature.

With help from an uncle, Eiseley attended the University of Nebraska, dropping out for periods because of illness or lack of money or academic woes. For brief stints, he rode the rails with other desperate, homeless men. During his eight undergraduate years, he wrote and published poems in traditional forms on

melancholy themes and acquired a local literary reputation. After finally graduating with a degree in anthropology and English, Eiseley entered the University of Pennsylvania for graduate work in anthropology. In 1938, he married Mabel Langdon, a reserved woman interested in art and literature and deeply devoted to nourishing her husband's spirit and writing. Seven years older than Loren, Mabel as student teacher had written encouraging notes on Eiseley's high school essays. They decided not to have children, in part, Eiseley claimed, because of a fear of transmitting the familial madness from his mother's side of the family. During his years of graduate study and later while he taught at the University of Kansas and then Oberlin, Eiseley's poetry writing dwindled under the pressure to produce professional articles like "Montagnais-Naskapi Bands and Family Hunting Districts of the Central and Southeastern Labrador Peninsula" and "A Neglected Anatomical Feature of the Foxhall Jaw." In 1947, Eiseley was appointed chairman and professor of anthropology at the University of Pennsylvania; in 1961, the University appointed him the first Benjamin Franklin Professor of Anthropology and the History of Science.

During the late 1940's, Eiseley turned from writing scholarly articles to highly allusive and metaphorical essays in natural history. In 1957, a collection of these revised essays was published as The Immense Journey, his lyrical speculations about the evolution of man and the complex interrelationships of all life. During the next twenty years, he published a number of essays and books, including

Darwin's Century, The Firmament of Time, The Mind as Nature, The Unexpected Universe, The Invisible Pyramid, and The Night Country. In his last years, Eiseley returned to writing poetry and published Notes of an Alchemist and The Innocent Assassins. Two other volumes of poetry, Another Kind of Autumn and All the Night Wings, and two volumes of essays, The Star Thrower and Darwin and the Mysterious Mr. X were published posthumously. Two years before his death Eiseley published his autobiography, All the Strange Hours.[9]

The Firmament of Time won both the John Burroughs Medal for the best publication in the field of nature writing, and the Lecomte du Nouy Foundation Award for "best work of particular interest for the spiritual life of our epoch and for the defense of human dignity" (Angyal 56). Angyal describes it as "the poetry of science":

> If Darwin's Century is essentially an historical treatment of evolution, then The Firmament of Time is lyrical and meditative. If the first study concentrates on the history of science, its sequel expresses the poetry of science: the beauty and elegance, as well as the explanatory power, of a master hypothesis that irrevocably altered our world view. (57)

This lyrical and poetic treatment did not, however, sit well with John Buettner-Janusch, a physical anthropologist at Yale. In a sneering review published in American Anthropology, Buettner-Janusch refers to the "slim volume" which "purports to have something to do with the history of science" as "a highly poeticized metaphorical

account of the development of a natural view of the universe" in which the writing becomes "intensely lyrical and the thread of thought becomes unraveled amongst the verbal brambles" (693-694). He describes the chapter "How Man Became Natural" as "a very literary interpretation of the record of hominid fossils" in which the writing is "sentimental and trite" and the ideas unfocused. In a comment worthy of Mencken, Buettner-Janusch blasts the chapter "How Human Is Man?" as "a series of moral parables on a somewhat higher level than those found in the repertory of a fundamentalist preacher. Their relevance to the discussion of an important part of the history of modern science eludes the reviewer" (694). Buettner-Janusch concluded that The Firmament of Time is "a work of obscurantism" and declared that "we need not inject mystery, fevered prose, overblown metaphors, and sentimental twaddle" into science which is inherently exciting and absorbing.. A friend of Eiseley's wrote a letter rebutting Buettner-Janusch and expressing the hope that the same critic would never be asked to review the Song of Solomon (Christianson 353).

Generally, the contemporary reception of Eiseley's work was effusively laudatory. Darwin's Century gave Eiseley credibility as a historian of science. Professor Marston Bates of the zoology department of the University of Michigan writing for Science said the book showed "complete mastery of materials and detailed scholarship," and the quality of the writing compared happily to Lovejoy's The Great Chain of Being (1493). Edward S. Deevey called

The Firmament of Time "anything but slight" and described Eiseley as "a mature and subtle thinker" able to articulate lucidly "the dilemma created by the 'naturalness' of man" (122). Writing in American Anthropologist eight years after Buettner-Janusch's scathing attack, Theodosius Dobzhansky declared "here is Proust miraculously turned into an evolutionary anthropologist"; he found The Unexpected Universe a "fascinating and inspiring book" (305). William D. Stahlman, professor of the hisory of science at the University of Wisconsin, described Eiseley as "a poet disguised as an anthropologist" and described The Unexpected Universe as "science in a humanistic language" (38). In a review of The Invisible Pyramid, Rene Dubos, professor of environmental biomedicine at Rockefeller University, declared himself bewitched by Eiseley's style "which is often that of a seer and prophet" (70). The Night Country was generally perceived as Eiseley's best book after The Immense Journey (Christianson 414). William R. MacKaye wrote of it, "This is a wise, eloquent, noble book by a man whose learning and whose use of it is a gift to all of us" (B1).

Eiseley began and ended as a poet. He started writing poetry in high school and actually published three dozen poems during his undergraduate years. In the 1960's, Eiseley returned to poetry writing after a hiatus of twenty years during which he solidified his academic career in anthropology and began writing natural science essays. Carlisle believes that Eiseley's years as an anthropologist became an intrinsic part of his later poetic voice and vision:

> Science is not simply the subject of his poetry, nor the underlying knowledge, nor is the poetry merely about Eiseley's experience as a scientist . . . . science has become an essential and inseparable part of the whole unbroken movement of perception and expression of man/scientist/poet.
> ("The Poetic Achievement of Loren Eiseley" 124)

In an extremely generous assessment, Carlisle says that Eiseley brought "a unique sensibility, knowledge, and imagination--that could only develop through science" creating a "new idiom, fusing science and poetry into a seamless and unanalyzable whole" (128). Others who have found it analyzable have also found that Eiseley, like Thoreau, is a better poet in prose than in poetry.

In a review of The Innocent Assassins, Ben Howard identifies strengths and weakness true of Eiseley's poetry generally. He says that Eiseley's most affecting poems are those set in the natural world but ultimately concerned with human arrogance and moral blindness. He calls Eiseley a "gentle misanthrope" (44). Howard finds Eiseley's strength, however, in his "historical imagination"--"not in his moralizing but in his magnificent evocation of prehistoric life" (45). The poems fail when they lapse into sentimentality or when they rely on a rhapsodic but rigid syntax: "First-rate insights will be buried in an avalanche of clauses; or, conversely, suggestive metaphors . . . will be laboriously extended" (45). Howard also finds banal phrasing, stilted locutions, and heroic postures. Nevertheless, he says the best poems "rise above their own discursiveness and didacticism" (45-46). Reed Whittemore found Eiseley to have "a

superficial rhetorical notion of what poetry is and does" and to have burdened himself with the outmoded notion of the poet as preacher. Writing of Notes of an Alchemist, Whittemore said that "the verse came out looking like prose but with more adjectives" (23). Angyal says that Eiseley's free verse and prose "differ in little more than the arrangement of lines. Too many of his poems say with less ease and originality what he said better in prose" (112). Gerber and McFadden concur; they describe Eiseley's later poetry as "essayistic free verse. Except for its typography, it is nearly indistinguishable from his more lyrical prose" and seems to be "preliminary notes for actual prose pieces" (32). Eiseley's poetry, unlike Wilbur's, is not a poetry of discovery. Eiseley's is a poetry of premeditation; he starts out knowing what his message is.

What Eiseley wrote of Thoreau is true of himself: "Neither science nor literature was his total concern. He was a fox at the wood's edge, regarding human preoccupations with doubt" (ST 224). In The Immense Journey Eiseley says that his mental travelings forward and backward in time had indeed been "an immense journey," and he warns those who would accompany him not to look for "science in the usual sense." Eiseley tells his readers that while he has tried scrupulously to avoid errors of fact, his essays offer not pure science but "the record of what one man thought as he pursued research and pressed his hands against the confining wall of scientific method in his time"; he admits that he offers not accounts

of discovery so much as confessions of ignorance (IJ 13). Orville Prescott described The Immense Journey as "lyrically beautiful" prose which gave Darwin's theory of evolution an indefinable religious quality (17). Peter Heidtmann in "An Artist of Autumn" finds in all of Eisley's essays that "science, religion, and art are not compartmentalized" but instead seem to be "aspects of a single mental process" (47). Describing his art as the "primary instrument of Eiseley's lifelong quest," Heidtmann says that the essays become "the vehicle of the conveyance of [Eiseley's] religious and scientific outlook . . . [and] the means by which . . . he lures us into participating in his vision" ("An Artist," Heidtman 47). Science, rather than narrowing his vision, fueled Eiseley's imagination: "scientific knowledge seems to have aroused in him a deeper pre-rational apprehension, which sometimes flashes out in sudden, startling perceptions" ("An Artist," Heidtmann 48). Carlisle calls Eiseley's approach "science with a touch of Thoreauvian extravagance" ("Heretical Science" 360).

Although Eiseley respected and participated in the search and the order-making of science, he also recognized science's shortcomings and potentials for misuse. Eiseley described two kinds of scientists--one an "educated man who still has a controlled sense of wonder before the universal mystery" and the other, "the extreme reductionist who is so busy stripping things apart that the tremendous mystery has been reduced to a trifle" (ST 190). Eiseley believed that Melville had symbolized on the "gigantic canvas" of

Moby Dick, in Ishmael and Ahab, "the struggle between two ways of looking at the universe: the magnification of the poet's mind attempting to see all, while disturbing as little as possible, as opposed to the plunging fury of Ahab with his cry, 'Strike, strike through the mask, whatever it may cost in lives and suffering'" (ST 200). Too often, Eiseley believed, the search of scientists and the governments supporting them became a search for power rather than understanding. Although science can be used by good men, Eiseley found no evidence that science can itself create good men.

Eiseley also saw a correspondence between the negative sides of science and the darker aspects of religion--both were capable of constructing and then imposing self-serving myths. Optimistic nineteenth-century biologists had assumed that the evolutionary tracing of life to its simplest stages would lead inevitably to solving the mystery of how carbon became animate. However, the mystery only deepened, and Eiseley says that science was left in the "embarrassing position of having to postulate theories of living origins which it could not demonstrate":

> After having chided the theologian for his reliance on myths and miracle, science found itself in the unenviable position of having to create a mythology of its own: namely, the assumption that what, after long effort, could not be proved to take place today had, in truth, taken place in the primeval past. (IJ 191)

Gale H. Carrithers, Jr., in Mumford, Tate, Eiseley: Watchers in the Night defines myth in negative terms as "a systematizing, totalizing mental pattern for dealing with semiconscious assumptions, conflicts, desires, and fears and integrating problematical experience with them, a pattern for dealing that permits social action" (213). Myth, Carrithers says, succeeds in reducing existential anxieties "by reducing the meaningfulness that goes with undecidability." Eiseley saw that science as much as religion could be a myth-maker, naturalizing man "in the structure of predictable law and conformity," and he feared those in science who would substitute one dogmatism for another:

> To those who have substituted authoritarian science for authoritarian religion, individual thought is worthless unless it is the symbol for a reality which can be seen, tasted, felt, or thought about by everyone else. Such men adhere to a dogma as rigidly as men of fanatical religiosity. They reject the world of the personal, the happy world of open, playful, or aspiring thought. (NC 104-105)

Science that becomes rigid becomes estranged from both life and from art.

Eiseley recognized that a "basic division" between science and art had widened in modern times: " . . . science seeks essentially to naturalize man in the structure of predictable law and conformity, whereas the artist is interested in man the individual" (NC 138).

> . . . man inhabits a realm half in and half out of nature, his mind reaching forever beyond the tool, the uniformity, the law,

> into some realm which is that of mind alone. The pen and the brush represent that eternal search, that conscious recognition of the individual as the unique creature beyond the statistic. (NC 141).

Eiseley believed it the responsibility of the artist to defend "the eternal flight" of the human mind from the imposition of institutionalized "laws, regularities, and certainties" (NC 141). Despite this gulf that seemed to be widening between science and art, Eiseley also believed that "a man may be both a scientist and artist," that the scientist may also experience the "the esthetic joy of the true artist" (NC 138). Therefore, Eiseley defended naturalists (himself included) who would mix art with science from the "new class of highly skilled barbarians" whose "unappetizing puritianism . . . without grace or humor" has found salvation in "facts" alone (NC 142).

Eiseley celebrated the impact of literary naturalists whose origins he traced to the line of "parson naturalists" like Gilbert White, the author of The Natural History of Selborne.

> Even though they were not discoverers in the objective sense, one feels at times that the great nature essayists had more individual perception than their scientific contemporaries. Theirs was a different contribution. They opened the minds of men by the sheer power of their thought. The world of nature, once seen through the eye of genius, is never seen in quite the same manner afterward. A dimension has been added, something that lies beyond the careful analysis of professional biology. (NC 143)

Remembering Richard Jefferies' "grim portrait of a starving lark cracking an empty snail shell," Eiseley found in the description not just sharp, accurate observation but also a sense of Jefferies' "poignant hunger--the hunger of a dying man--for the beauty of an earth insensible to human needs" (NC 142-143). He discovered something "uncapturable" in W. H. Hudson's landscapes--"a strange nostalgia haunts his pages--the light of some lost star within his individual mind" (NC 143). Eiseley believed that without the guidance of the "rare and exquisite sensitivity" of the literary naturalists, we would lack pity and tolerance for that which we had never learned to see or value: "It is within the power of great art to shed on nature a light which can be had from no other source than the mind itself" (NC 143).

Enamored of the greater scope and possibility for meaning in a less rigid form, Eiseley himself became primarily a writer of personal essays in the tradition that began with Montaigne and was later taken up by the English parson-naturalists. In America, Thoreau had established the tradition of combining keen observations of the natural world with visionary romanticism and became the progenitor of a line that includes not only Eiseley but John Burroughs, John Muir, Edwin Way Teale, Sally Carrighar, Aldo Leopold, Rachel Carson, and Annie Dillard (Gerber and McFadden 22). Andrew J. Angyal describes the metamorphosis in Eiseley's writing from scholarly anthropology articles to the natural history essay:

> Dissatisfied with the restrictive, value-free orientation of modern science, Eiseley turned to the essay in the hope of finding a form through which he could articulate his sense of wonder. For some time he had been privately disillusioned with the 'religion of science'--with its rigid assumption that every natural event in the universe can be rationally explained by prior events. He found it increasingly difficult to reconcile his 'personal universe' of mystery and beauty with the rational universe of science, where everything is ultimately reducible to fact and measurement. (Loren Eiseley 33)

Angyal says that modern natural history writing differs from the older pastoral tradition "by avoiding the sentimentality, the stock nature descriptions, and the 'pathetic fallacy' typical of literary pastoralism. Instead, the natural history essay gains vividness and accuracy from the influence of empirical science. It is both personal and facutal, balancing objectivity with delight" (34). The hallmarks of the natural history essay are, according to Angyal, the writer's aesthetic response to the natural world, "an affectionate sense of locale, an appreciation of a particular physical landscape," and the recognizable voice of a distinctive personality. (34-35).

Annie Dillard, in her Introduction to The Best American Essays 1988, writes that "it was Loren Eiseley--a scientist--who restored the essay's place in imaginative literature and who extended its symbolic capacity" (xv). Angyal believes that Eiseley, in fact, deserves credit for inventing a new genre, "one that enlarged the power and range of the personal essay" (39): "In his imaginative synthesis of literature and science, he combines narrative and hypothesis, fact and feeling, metaphor and exposition. The result is a new style of scientific

literature and a new literary genre, an expansion of the personal essay for scientific purposes" (Angyal 42).

In his autobiography All the Strange Hours, Eiseley describes the evolution of the unique form he calls the "concealed essay." He says that it grew out of the rejection of one of his articles by a scientific periodical. Eiseley decided to rework the material into a more literary format designed to appeal to the nonscientist: "personal anecdote was allowed gently to bring under observation thoughts of a more purely scientific nature" (ASH 177). Eiseley believed that such a personalized style would heighten the reader's interest without doing any harm to the scientific data (ASH 178). Angyal describes the elements of Eiseley's form:

> The 'concealed essay' starts with a vivid anecdote or reminiscence and gradually expands it in a scientific or contemplative direction. The subject matter of the essay, whatever it may be, is framed or 'concealed' by the personal approach, which serves as a rhetorical device to engage the reader's attention. Thus the 'concealed essay' became for Eiseley a highly elaborate form, with frequent literary references and allusions, numerous quotations, multiple themes, and an interwoven structure of contemplative concerns. This casual and informal, though sophisticated, technique brings narrative and personal experience, essentially fictional and autobiographical tools, to bear on what is otherwise simply expository material--scientific fact and hypothesis. (39)

The best of Eiseley's essays, Angyal says, display "a fine balance of autobiography, allusion, and exposition. The allusion often sets the theme, the exposition introduces the conceptual material, ususally

scientific, and the autobiographical incidents provide tone, structure, and continuity" (Loren Eiseley 80).

Carrithers, however, compares the style of Eiseley's essays to the anthropologist's description of himself desperately trying to teach sociology classes at Oberlin: "I began to feel like the proverbial Russian fleeing in a sleigh across the steppes before a wolf pack. . . . everything from anecdotes of fossil hunting to observations upon Victorian Darwinism were being hurled headlong from the rear of the sleigh" (ASH 131). As a result of this method of composition, Carrithers finds it difficult to descry a structure even in those essays where a chronology is discernible; he says that one reaction to Eiseley's writing "is likely to be the feeling that he is trying everything with the reader" (196).

Carlisle's analysis of the "the fundamental rhythm, or movement of attention" in the opening chapter of The Immense Journey is a succinct statement of the nonlinear, synthetic dynamic of most of Eiseley's essays:

> Besides moving variously from autobiography to science, to metaphor, and to speculation, the narrative also moves from the present into the past, back to the present, and into the future. If one were to trace both of these movements in detail, the result would be quite complex, because Eiseley frequently, and artfully, changes his focus. (Loren Eiseley 168)

This strategy of weaving autobiography with science, symbolism, and metaphysics allowed Eiseley to create multiple dimensions of

meaning. The various aspects interact and even transform so that, as Carlisle observes "one of Eiseley's scientific subjects may turn into a general theme with broad human and existential significance, or a physical site might function simultaneously as an occasion and a metaphor" (Loren Eiseley 168). Carrithers also sees in Eiseley's essays "widespread efforts to generalize, to move from the uniquely historical to the designedly emblematic" (201).

Angyal says that in composing his essays, Eiseley would often begin "with the kernel of an actual field happening" and then selectively alter or ficitonalize it "to heighten a mood or tone, or else to emphasize some theme or motif": ". . . as the incident unfolds natural history gradually becomes a metaphor for personal history as the author probes the recesses in his mind" (Angyal 14). The richest sources of experience for Eiseley's essays were his childhood and the summers spent digging in remote areas on the Western plains with the "South Party," small anthropological/paleontological expeditions sponsored by the University of Nebraska. Angyal believes that "[m]ore than any others, these were the events that fixed themselves in his memory to be transmitted by his imagination into the compact and powerful metaphoric descriptions that distinguish his style" (16).

In fact, the strongest unifying element and the dramatic force of the essays is the Eiseley persona. Writing of The Unexpected Universe, Angyal says that the autobiographical sections "comprise the most memorable passages in the book" and that "Eiseley makes science an intensely personal and often mystical experience,"

recreating incidents from his career which "brought him face to face with a 'Mysterious Other'--miracles, one might almost say that forced him to contemplate the subjective and illusive dimensions of the natural world" (80). In his private encounters with his personal universe, Carlisle says that "Eiseley makes himself the center of each chapter, and he rarely includes other persons," and Eiseley, the inveterate solitary, portrays science as a lonely quest ("Heretical Science" 361). From the center of the experiencing self Eiseley builds his essays: "they begin with the self and move variously into the personal and evolutionary pasts or into the personal and scientific presents, never losing touch with the self at the center, and normally returning at the end to Eiseley the man and scientist" (361). Carlisle finds that science "is simultaneously a pursuit of the self and an attempt to make increasingly closer and closer contact with reality. The personal and universal dimensions of science merge in Eiseley's books, as the quest for knowedge of reality and knowledge of oneself become one" ("Heretical Science" 374).

Eiseley was plagued most of his life by an intense fear of the loss of the self. His vivid imagination combined with his fear of death to make him a hypochondriacal insomniac. He magnified and dramatized minor illnesses, and he found it easier to nap in the daylight with others near him than to fall asleep in the dark alone. His biographer Gale E. Christianson describes Eiseley's autobiography as "among the longest chronicles of an individual death in literary history, spanning almost seventy years" (Fox at the Wood's Edge

426). Carrithers compares Eiseley to "Heinrich Boll's artist, who 'carries death within him like a good priest his breviary'" (Mumford, Tate, Eiseley 243). Carrithers also recognizes in Eiseley an urgent need for control and sees his writings as strategies to control life through words (196).

> He who in his highly selective but multiple autobiographical writings recounted almost actualized deaths or symbolic deaths . . . would seem to have come, almost like Lazarus, to speak as if from the tomb or from a night journey, with a knowing and fascinated dread of death and a disdain for usual human boundaries and enclosures" (Carrithers 199).

In Eiseley's case, death was the mother of essays.

Eiseley had to find his comfort in words because he could not find it in religious faith. Eiseley had no religious training as as child, was never affiliated with any religious group as an adult, and professed no religion; nevertheless, Heidtmann describes Eiseley's disposition as "unmistakably religious" (Loren Eiseley 73). Defamed as a mystic by some of his scientific colleagues for writing in the "no-man's land between science and literature," Eiseley declared himself an agnostic but then described his life as a religious pilgrimage (ASH 141). His essays suggest religious longing if not religious faith. They convey a profound sense of the mystery of life and an intense feeling of awe bordering on terror before the miracle and strangeness of the ordinary. His essays also convey an aching need for some larger context of meaning to give dignity to the brevity of human life and a

solitary, restless quest to discover that meaning. Perceptively, Gerber and McFadden conclude that "this scientist ranks as one of the arch-romantics of our time" (Loren Eiseley 52).

J. Hillis Miller in The Disappearance of God writes that " . . . modern literature betrays in its very form the absence of God. God has become a *Deus absconditus*, hidden somewhere behind the silence of infinite spaces, and our literary symbols can only make the most distant allusions to him, or to the natural world which used to be his abiding place and home" (6). According to Miller, "modern thought has been increasingly dominated by the presupposition that each man is locked in the prison of his consciousness" and that alienation from everything outside has produced "a radical sense of inner nothingness" (8). In modern literature, the "drama has all been moved within the minds of the characters, and the world as it is in itself is by implication unattainable or of no significance" (12). Miller defines romantics as those who still believe in God but who suffer the divine absence. He describes the "central assumption of romanticism" as "the idea that the isolated individual, through poetry, can . . . create through his own efforts a marvelous harmony of words which will integrate man, nature, and God" (14). The romantic artist is one "who goes out into the empty space between man and God and takes the enormous risk of attempting to create in that vacancy a new fabric of connections" (13-14). Not all romantics are believers, however. There are romantics like Wallace Stevens who have felt the absence without ever having known the presence;

for them poetry becomes something that will suffice, that will help them live their lives. These romantics experience a profound sense of mystery and an insatiable longing without any conviction that there is something that will fill their void; for them poetry becomes their way of exploring the mystery and letting longing itself become meaning. Eiseley was such a romantic.

Jacques Maritain describes what he sees as the predicament of poets who, as human beings, have no metaphysical myth[10] to sustain them in the mystery of being and to help in working out their own destinies:

> Those poets who have rejected faith in Transcendence, and entered into the spiritual experience of the void, are bound... to turn toward a substitute for what they have rejected: a new god of their own, or a system of revolt against and hatred for the celestial Intruder, as Lautreamont put it, or that 'Profundum, physical thunder, dimensions in which We believe without belief, beyond belief' of which Wallace Stevens spoke--all this sought for in the place of God from whom they had parted. Hence their nostalgia for 'new myths.'
>
> (Creative Intuition 319)

Eiseley's religious need and absence of faith did indeed inspire him to become a myth-maker.

Ironically, given his rejection of the dogmatic myths of science and religion, what Eiseley did to fill the abyss of his personal angst was to embrace the supple myth of evolution and make himself its protagonist. According to Carlisle, Eiseley so interiorized the theory of evolution that for him it functioned as "a major structure for

perceiving and comprehending experience": "He dwells in it, and through it he makes contact with reality. His research and travel, his scientific knowledge, and his belief in the modern theory of evolution give his work perspective, shape, and authority, as well as content" ("Heretical Science" 365).[11] Angyal writes that, for Eiseley, "[e]volution itself . . . becomes 'transcendental' in that all forms of life constantly strain against their limits, their ecological niches--in the quest for survival" (Loren Eiseley 28). Evolution becomes the "controlling metaphor" in Eiseley's work, Angyal says, "because through it he implies that there is something mysterious, purposeful, even transcendent about . . . apparently random events in the natural world" (32). As Eiseley portrays it, evolution is the unseen, inexorable, driving force whereby protean nature maintains a process of change, advancing life forms to greater and greater complexity in a fierce commitment to creation but a total indifference to the results and certainly no commitment to preserve any species. Angyal says that Eiseley the artist could see the dramatic potential in evolution: "Eiseley was . . . gifted with a synthesizing, metaphoric mind that constantly sought connections between fact and imagination. He possessed the poetic vision to perceive the natural history of life's emergence as an epic event--a spectacle of prehistory . . . " (Angyal 35). Gerber and McFadden note that "[u]nder Eiseley's guidance, objective knowledge about evolutionary history becomes the stuff of vision" (Loren Eiseley 152).

Against this mythic background, Eiseley set his drama of being and cast his persona in the leading role.

Eiseley so personalized the myth of evolution that he came to feel that his real home was back in a cave somewhere during one of the interglacial springs between ice ages and felt himself a shape-shifting phantom, lingering briefly before changing to yet another form. The neolithic hunter had momentarily taken on the guise of a scientist mulling over old bones. Angyal compares Eiseley to Thoreau, who raised his sojourn near Walden Pond to mythic proportions:

> Like Thoreau, who confronted the cultural barrenness of nineteenth-century America and responded to the lack of available cultural myths by evoking the mythic dimensions of his own experience, Eiseley also became increasingly a personal mythmaker, forging a mythic personality (of the scientist as seeker) from the culmulative autobiographical material woven throughout his writing. (Angyal 82).

Observing that the borderline between fiction and nonfiction is blurred in autobiographical writing, Heidtmann in his study Loren Eiseley: A Modern Ishmael describes how Eiseley used the excavations of his past to create the myth of his literary persona. Heidtmann says that Eiseley was "first and foremost an artist, a writer in the imaginative sense of the term" but that in his essays Eiseley "is impelled primarily by the autobiographical impulse" (3-4); therefore, in his essays, Eiseley becomes "the protagonist of his own mythic story" (19). Eiseley's voice, Heidtmann says, is "lyrical, often

melancholy, sometimes forlorn" (6), a voice that projects the writer's inward self--"his private, solitary experience," the pilgrim side rather than the public aspect of his life (16).

Heidtmann shows how Eiseley presents his past in ways that weave a backdrop against which the Eiseley persona emerges as a mythic figure. He cites, for example, the dedication of The Night Country to Eiseley's grandmother Malvina McKee Corey, "who sleeps as all my people sleep by the ways of the westward crossing." The dedication connects Eiseley's ancestors with a great historical movement, and his description of his own origins--"conceived in and part of the rolling yellow cloud that . . . has been blowing in my part of the Middle West since the ice age" (NC 197)--places Eiseley himself "within a geological context that transcends history" (Loren Eiseley 28). Similarly, in The Invisible Pyramid he frames his life within the cyclical passage of "The Star Dragon," Halley's Comet, to lift it out of the ordinary and portray himself "from the very beginning as an actor on a cosmic stage" (31). Heidtmann says that the "almost unrelieved grimness" of Eiseley's childhood memories and his dominant view of himself "as a castaway, a fugitive, and a solitary wanderer" imply that powerful forces seem to be working toward his destruction (33), thereby associating himself with figures of mythic proportion like Odysseus, Robinson Crusoe, Ishmael.

> Paleontological fieldwork, combined with broad scientific learning and poetic insight, enabled him to find the larger context of signification for which his spirit yearned . . . . With it he established himself as the brooding hero of his personal

> myth. And it is this figure--the wanderer or solitary seeker who, with Sisyphean perseverance, refuses to give up his struggle despite the threat of ultimate extinction--that captures our imagination. (Heidtmann, Loren Eiseley 41)

Schwartz says that in The Night Country Eiseley, the scientist, accepts the role of the poet and, like Virgil leading Dante, conducts his reader "through a sacred night country of life and death, transcendence, and banality" (Schwartz 865). Attributing Eiseley's religious disposition to the his study of ethnology and the beliefs and rituals of primitive people, Erleen J. Christensen says that Eiseley takes on the role of shaman, finding kinship with animals, struggling to transcend historical time, and finding vision in the wilderness. She calls All the Strange Hours "a shaman's story."

Describing in his autobiography his adoption of the style of the "concealed essay," Eiseley noted that every essayist from Montaigne to Emerson had discovered that "the self and its minute adventures may be interesting . . . but only if one is utterly, nakedly honest and does not pontificate" (ASH 178). This statement, however, is the ruse of a clever and wary fox skilled at hiding his tracks. Eiseley's essays are far more concealing than concealed. First, rather than using autobiographical material as frame and enchantment to draw the reader in so that he may then speak about science, Eiseley actually uses the elements of science to give order and credibility to his personal explorations of self and world. Secondly, the experiences of the Eiseley persona in the essays are much more fiction than fact.

Eiseley's numinous encounters which "often involve strange and solitary figures, shamans perhaps, bearing oracular messages decipherable to a mind open to such preternatural events," Angyal finds, have often been "heightened or altered to suit Eiseley's thematic purposes--and some may be largely invented to fit the context of a particular essay" (Loren Eiseley 81). Christianson, in his biography The Fox at the Wood's Edge, reveals that a number of the events which Eiseley recounts under the guise of personal experience either never happened or are highly fictionalized. For example, the dog Wolf told of movingly and sensitively in "The Angry Winter" is, in fact, a fiction. The dog became so real to Eiseley or so necessary to his persona that he dedicated The Unexpected Universe, "To Wolf, who sleeps forever with an ice age bone across his heart, the last gift of one who loved him" (Christianson 393).

Gerber and McFadden describe Eiseley's autobiography All the Strange Hours as "exceptionally well-wrought," bound by careful use of recurrent symbols, themes, and narrative patterns. They say that the work "betrays a fierce determination on Eiseley's part to control, shape, and frame his material": "This degree of literary intentionality and control is unusual in an autobiography" (140). Noting that a "novelistic quality suffuses the book," Gerber and McFadden say that "[a]lthough told in the first person, the tale is prepared for maximum effect, calculated and proportioned to imitate spontaneity." They conclude that "[a]t times Eiseley seems not so much to be presenting a life as creating a character" (141). Gerber

and McFadden attribute "Eiseley's preoccupation with presence, authorial control, and formal literary effect [to be] intimately related to that struggle against loneliness around which the book revolves" (141). Carrithers believes that Eiseley's selective and fictionalized autobiography arises partly from a desire for privacy and self-protection. Carrithers finds in Eiseley "a conviction that there are privacies not to be externalized" (200-201) and sees Eiseley's reticence as a "courteous man's decorum and reluctance to be agressively exhibitionistic, a private man's distance, a scarred man's caution" (205).

Christianson, Eiseley's biographer, asks of All the Strange Hours, "But what of the hours that were not so strange?" Eiseley leaves out of his autobiography the names and dates and people of his daily life in order to become "his own most memorable creation" (426). Christianson says that Eiseley's autobiography and his other works "must be viewed primarily as literature rather than as a historical document." Through his writing, Eiseley transformed his life with all its inadequacies and loneliness into personal myth.

> Eiseley's pilgrimage . . . constitutes a variation on the ancient myth of man's fall from grace--the quest of a scientist at odds with his calling. Fear, anger, sorrow, elation, and rejection are as much a part of his writing as the Darwinian revolution, the genetic code, or the sun-varnished bones of the early mammals. (427)

Eiseley--for whom time was a wound--created the myth of himself, a persona to outlast time. Chritianson calls Eiseley's "compulsion to fictionalize . . . a means of scratching his initials more deeply than others" (412). Yet, behind the fiction, there is deeper truth. Christianson concludes that while All the Strange Hours "is rife with distortions, fantasies, and illusions, it will forever be the most vivid and, in some essential sense, veracious evocation of its chimerical subject and author" (428).

Eiseley's essays are a complex mixture of art and science and religious longing. Each of the elements informs and transforms the others, and none of the elements can be separated without destroying the compound.

Richard Wilbur

If his poems are "unfashionably favorable toward nature," Richard Wilbur says "this warp" must be blamed "on a rural, pleasant, and somewhat solitary boyhood" (qtd. in Sayre, "A Case for Richard Wilbur as Nature Poet" 154). Wilbur, born March 1, 1921, grew up "among woods, orchards, corn-fields, horses, hogs, cows, and hay-wagons" on a farm in North Caldwell, New Jersey, where his family lived in a pre-Revolutionary stone house on a rich's man's country estate. If Eiseley's childhood was often a misery, Wilbur's was mostly an idyll. Wilbur describes life on the Farm as "what amounted to a spontaneous English colony: all was tea, bowls, tennis,

Epsicopalianism, gardening, music, and bridge, with agriculture and commerce in the middle distance and background" (qtd. in Dacey, "An Interview with Richard Wilbur" 116). His father, Lawrence Lazear Wilbur, was a portrait and landscape and seascape painter who had to do commercial art to support the family. Wilbur remembers playing with his father's paints and brushes and drawing cartoons; even when he was in college he still thought he might be a newspaper cartoonist. Wilbur says of his parents that he relished his father's craftsmanship and invention as well as his mother's gift for words (qtd. in Butts, "An Interview with Richard Wilbur" 255). The most devasting criticism Wilbur makes of his mother, Helen Ruth Purdy Wilbur, is that she "had too many roses, and too many flowers generally, and I was made to work amongst them and weed them, and do the back-breaking things that you have to do for a lady gardener who is always changing her mind about where she wants the beds to be" (qtd. in Joan Hutton, "Richard Wilbur" 46). He says the childhood trauma convinced him he did not like flowers and made it impossible to remember their names. However, despite the early scars, he became an avid vegetable and herb gardener.

Unlike Eiseley who spent eight erratic and interrupted in undergraduate study, Wilbur finished Amherst in the traditional four years. During two summer vacations from college, he rode the rails and hitchhiked all over America. His hoboing, unlike Eiseley's founded on desperation and poverty, was a "boyish adventure tinged with Depression radicalism and the poetry of others" (qtd. in Dacey,

"An Interview with Richard Wilbur" 117). Wilbur married Charlotte Ward, who brought as a dowry, through her newspaper-publishing family, a friendship with Robert Frost. Their marriage has lasted more than fifty years and produced four children and, it seems, considerable happiness. Wilbur joined the Enlisted Reserve Corps during World War II and studied cryptography. When it was discovered that he had leftist views, radical friends, and a volume of Marx in his footlocker, the Army classified Wilbur as an undesirable who could not be trusted as a cryptanalyst but was acceptable for commando training. He was sent along with other undesirables--"amiable bookies or bootleggers for the most part"--to join the infantry in Italy. After three years with the 36th Infantry Division in Italy, France and Germany, Wilbur returned to study and then teach at Harvard. He also taught for two years at Wellesley and then for twenty years at Wesleyan; subsequently, he became writer-in-residence at Smith. Like Eiseley, Wilbur has received numerous awards and honorary degrees; in 1987 he became the second Poet Laureate of the United States.

In addition to his volumes of poetry--The Beautiful Changes and Other Poems (1947), Ceremony and Other Poems (1950), Things of This World (1956), Advice to a Prophet and Other Poems (1961), Walking to Sleep: New Poems and Translations (1969), The Mind-Reader: New Poems (1976), and New and Collected Poems (1987)--Wilbur has translated from French four comedies by Moliere and two

tragedies by Racine.[12] He has also published a book of collected essays called Responses: Prose Pieces, 1957-1976.

Despite, or because of, his considerable recognition, Wilbur has been roundly criticized. In the fifties and the sixties when poetry was turning "beat" and "confessional," Wilbur continued to compose highly wrought, decorous, "impersonal" verse that, as he says, played "the whole instrument"--rhyme, meter, complex stanzaic forms, out-of-the-ordinary diction, metaphor and imagery, puns, paradox, irony, ambiguity, assonance, alliteration, allusion. Some critics came to see him as a left-over Modernist, a stuffed-shirt academic poet in an age of free-verse confessors. Clive James in "As a Matter of Tact" draws telling comparisons:

> While his contemporaries held the mirror up to chaos, Wilbur took the opposite line: the more extreme the thing contained, the more finely wrought the container had to be. Berryman and Lowell went in for stringy hair, open-necked shirts, nonrhyming sonnets that multiplied like bacilli, and nervous breakdowns. Wilbur, on the other hand, looked like an advertisement for Ivy League tailoring and turned out poems built like Faberge toy trains. (145)

Randall Jarrell also found Wilbur's poetry too well-dressed. In his review of "Fifty Years of American Poetry," Jarrell complains about Wilbur's Horatian "studied felicity"; he finds that Wilbur's "impersonal, exactly accomplished, faintly sententious skill" produced poems with "a little too regular a beauty--there is no eminent beauty

without a certain strangeness in the proportion." Ironically, having said that, Jarrell in the next sentence declares "A Baroque Wall-Fountain in the Villa Sciarra" to be "one of the most marvellously beautiful, one of the most nearly perfect poems any American has written" ("Fifty Years of American Poetry" 85).

In his review of Advice to a Prophet, Theodore Holmes joins the chorus in taking Wilbur's style to task. He describes Wilbur as a prophet without a prophecy and his poetry as a "diversion" based on "style, manner, polish, wit, and decoration of vocabulary and learning" ("Wilbur's New Book" 72). Holmes calls this "the despair of style" resulting from Wilbur's distrust of human cognition but ironic attachment to the things of the world which can be known only through human cognition. Holmes also accuses Wilbur of taking patrician comfort unavailable to most of the world: "Holding up the things of this world in their own ultimate status in ontology as a solution to the dilemmas of human existence can only be satisfactory for the privileged and unthinking . . . " (73).

In his essay "A Kind of Solution: The Situation of Poetry Now" (written in 1963), Leslie Fiedler, a confessional critic in a time of confessional poets, described Wilbur as definitively the best of a group of poets descended from Poe "passed via the French *symbolistes* to T. S. Eliot and from him to certain quasi-official bards of the academy and the suburbs" (54-56). Fiedler traces their descent from the Modernist revolution which began before World War I down to the "almost unchallenged orthodoxy" of "the Eliotic

New Poetry" cultivated in academia by the poet/critic/professors of New Criticism. The poets of this school, Fiedler says, are "characterized by a uniform anguish and joy, a uniform broad range of erudition, and a uniform high level of technical excellence--impressive but somehow more than a little depressing" (54). Fielder says Wilbur's language is "never banal and never outrageous; his music never dull and never atrocious; what he can do he knows, and is never tempted to exceed it" (56). Writing specifically of Wilbur's "Museum Piece," Fiedler finds that the poem has wit and grace and a drive for excellence but bemoans that "there is no personal voice--and there is no sex: the insistent 'I' and the assertion of balls being considered apparently in equally bad taste" (58). It would be a crime against delight not to juxtapose to Fiedler's comments Anthony Hecht's assessment (written fourteen years later) of Wilbur against the background of the confessional school:

> . . . in this poetic era of arrogant solipsism and limp narcissism --when great, shaggy herds of poets write only about themselves, or about the casual workings of their rather tedious minds--it is essential to our sanity, salutary to our humility, and a minimal obesiance to the truth to acknowledge, with Wilbur . . . the vast alterity, the 'otherness' of the world, that huge corrective to our self-sufficiency. (130)

Frank McConnell says that though he himself finds Wilbur to be "our most readable serious poet," the fashion in the late 1970's was "to confess no more than an amused, minor enthusiasm for Wilbur" ("Reconsiderations" 37). Assessing "Richard Wilbur's Critical

Condition" in1977, Charles R. Woodard found that commentary on Wilbur had become stylized and predictable, "like bullfighting," with "the ritual praise of his technical virtuosity. . . followed quickly by the disclaimers which establish [the critic's] awareness of its irrelevance to contemporary life."[13] The objections to Wilbur's poetry, Woodard discovered, came under two headings: First, violating William Carlos Williams dicta, Wilbur thinks too much and allows things into his mind where his imagination acts upon them. Second, in a world where a good poet is expected to suffer and precisely report his suffering, Wilbur does not suffer enough and does not report his suffering if he does (221).[14]

Wilbur has also been perceived as irritatingly optimistic and affirming. Hyam Plutzik grumbled that the poet is "damnably good-natured in an abominable world" ("Recent Poetry" 68). Randall Jarrell complained that Wilbur "obsessively sees, and shows, the bright underside of every dark thing" (85). Wilbur, indeed, admits to a powerful sense of the world's beneficence. Despite evident evil and disorder, Wilbur feels that "the universe is full of glorious energy, that the energy tends to take pattern and shape, and that the ultimate character of things is comely and good." He believes that "when you discover order and goodness in the world, it is not something you are imposing--it is something likely really to be there . . ." (qtd. in Stitt, High, & Ellison, "The Art of Poetry: Richard Wilbur" 190). In place of the inexorable, indifferent force Eiseley perceived driving through nature, Wilbur has a sense of the inevitability of

good. One of the poems he has found most affecting "*Magna est veritas*" by Coventry Patmore concludes: "The truth is great, and shall prevail, / When none cares whether it prevail or not" (qtd. in Broughton, "An Interview" 133). Wilbur understands Patmore to be saying that "no matter what he does, no matter what anybody does or does not do, or wish, the truth is great and shall prevail. The world is good and will turn out so" (134).

Wilbur attributes his sanguinity to his disposition and his faith. Wilbur is a Christian, a life-long Episcopalian who once appalled his friend Elizabeth Bishop by mentioning that he had been to church. In response to Bishop's query as to whether he actually believed all that, Wilbur says that he responded, "Like most people, I have my days of believing nothing, and I have my days of believing much of it, and some days I believe it all" (qtd. in Fountain and Brazeau, Remembering Elizabeth Bishop 348). On another occasion, Wilbur wrote, "I have never doubted the existence of God and the radical goodness of the world" (qtd. in Cummins 40).

Marjory Scheidt Payne finds that Wilbur's "spirituality is not rooted in theological concepts and speculations, but in fidelity to human experience" (Giver of Due Regard 23). Payne says the quality most basic to Wilbur as a religious poet is his willingness "to 'bind himself' . . . to a reality outside the self" and his acceptance of the role of the poet as the redeemer of language, rescuing words from their fallen state of "multiplicity and imprecision" (3). Michelson, too, sees Wilbur's religious vision rooted in this world; he says that

"Wilbur accepts man as a creature who may have a place of a meaning in other realities; yet only by understanding who and where the self is now--as an unstable brew of flesh and spirit--can one hope to understand anything more of one's place in this or any other dimension" (Wilbur's Poetry 42). Wilbur's poetry is religious in the broadest sense. He has been influenced by Augustine's theology of wonder and praise which finds the Creator in all of creation (Scheidt 5). Augustine believed that God had made human beings by--

> . . . coupling and connecting in some wonderful fashion the spiritual and corporeal natures . . . . And this work of his is so great and wonderful, that not only man, who is a rational animal, and consequently more excellent than all other animals of the earth, but even the most diminutive insect, cannot be considered attentively without astonishment and without praising the creator. (City of God 116)

Embracing Augustine, Wilbur is, on the other hand, offended by St. Paul's distaste for the body and dislikes "all 'spirituality' which condemns the body or this world" (qtd. in Cummins, Richard Wilbur 40). Virginia Levey declares that "[f]or Wilbur the spiritual only exists when clothed with flesh" ("World of Objects" 41).

In "The Bottles Become New, Too" Wilbur describes the experience of reality outside the self as a "call to prophecy" and a "minimum devoutness":

> In a time of bad communications, when any self-transcendence is hard to come by, to perceive the existence of a reality beyond constructions of the consciousness is to experience a

> kind of call to prophecy. To insist on the real existence of the four elements, of object, of animals, taking these things as isolable representatives of the ambient reality, is a kind of minimum devoutness in these days. It is a step toward believing in people." (218).

Peter Harris believes it would be hard to find "a contemporary poet more evidently solicitous of the irreducible particularity of the natural world." Harris says that Wilbur's "aesthetic appreciation of the visible world is suffused with wonder and a sense of kinship" ("Forty Years" 413). He sees Wilbur as "first and last, a celebratory poet, most often of the transient epiphanic glories of the natural world. And whether the subject is natural or human, the central value in his work is love" (415). Wilbur's genius, according to William Heyen, has been "to invest the quotidian with holiness" and to conceive of reality as a "'sacramental economy,' a world of presence, possibility, beauty; a world shimmering with reciprocity, a world in which man, in the words of Wallace Stevens, could bear the burden and glory of recognizing his 'unique and solitary home'" ("On Richard Wilbur" 629).

Raymond Benoit in "The New American Poetry" lists Wilbur among a group of poets whose poetry is "concerned with letting things be, with letting things reveal themselves" (164). Taking the same tack, Nathan Scott places Wilbur in the line of "cultural fit" with "the one truly great original theologian in the American tradition"--Jonathan Edwards.[15] Scott describes "the organizing principle of Edwards' entire philosophic meditation [as] a doctrine of Being." He

says that Edwards (anticipating Hopkins and Heidegger) perceives Being-itself, which he calls God, as "constantly present in all the things of this world, enabling them to be whatever it is for which they are destined by their inner constitution" ("Poetry of Richard Wilbur" 9). Scott believes that Edwards rather than Emerson may be the real progenitor of the poetry of presence that leads from Whitman through Williams to Wilbur:

> Indeed, perhaps even more regularly than American poetry has followed the injunction of Emerson's Orphic poet to 'Build therefore your own world' it has decided, from the time of Whitman to that of William Carlos Williams, that, the world at hand being already refulgent with the plenitude of Being, it need not move *elsewhere* for *real* life (in the manner of Poe) but need only take its recourse to the quotidian scene of the everyday hour. And it is to this Edwardsean line of thought and vision that Richard Wilbur is most deeply committed . . . ("Poetry of Richard Wilbur" 10).

In Wilbur, who (as he writes in "Praise in Summer") is "[o]bscurely yet most surely called to praise," Scott sees a "*reveling in the sheer ontological amplitude of the world*" (11; emphasis added). Wilbur celebrates "the radical holiness and the indelible beauty that indwell the things of this world, imperfect as they may be" (28). Scott says a "sort of *pietas* toward the richness of the created world" recurs constantly as a "leitmotif in the logic of Richard Wilbur's poetry" (12). In a similar vein, John P. Farrell finds in Wilbur's poetry a celebration of "the ineffaceable beauty which subsists in an imperfect universe, a beauty which is both created by imperfection

and in adamant conflict with it" ("The Beautiful Changes in Richard Wilbur's Poetry" 188).

Though Wilbur seldom uses a distinctively Christian idiom,[16] Scott describes "the whole emphasis" of Wilbur's thought as "incarnationalist" because it conveys the sense of its own being existing within Being:

> . . . the sense that the fundamental norm of consciousness is located in a powerful Presence beyond the mind . . . which, however much it may transcend the things of nature and history, is nevertheless pervasively immanent within the ordinary and the commonplace, in that dimension of their depth which forever eludes and withstands all the conceptual nets of our devising. ("Poetry of Richard Wilbur" 29-30)

Scott says that this "sense of the human order . . . 'isled' in a world that is radiant of mystery and wonder and glory" persists through blessing as well as defeat because "the Ineffable is equally to be encountered" in both (31).

Though Wilbur reminds us that "the route toward the *mysterium tremendum* leads through the quotidian realities of the everyday world," Scott insists that Wilbur does not fail to recognize "how fearful these realities may be" (22). McConnell also points out that "[t]o say that love calls us to the things of this world is not to say that love is easy, or that the things of this world are incapable of terror" (38). Anthony Hecht finds in Wilbur's poetry "an impressive capacity to confront the shocking , the appalling, the grotesque," mentioning in particular that "Walking to Sleep" and "The Mind-

Reader" each deal with "terrors of different sorts" ("Master of Metaphor" 27-28). A recurrent image in Wilbur's poetry is the dark, threatening whirl which draws all things to its center but also creates by virtue of its vortex the peripheral spin that causes things to coalesce, to aggregate and take shape at the periphery. Poetry and life, to be vital, seem to need the threat of chaos--"the pitchy whirl at the mind's end." As an infantryman in Italy during World War II, Wilbur began writing poetry to assuage the boredom and fear he experienced between the terror of battles.[17] He says that he used poetry to give order to a disordered world:

> One does not use poetry for its major purposes, as a means of organizing oneself and the world, until one's world somehow gets out of hand. A general cataclysm is not required; the disorder must be personal and may be wholly so, but poetry, to be vital, does seem to need a periodic acquaintance with the threat of Chaos" (qtd. in Kunitz 1080).

Michelson says that Wilbur, rather than the "abhored optimist" he is sometimes accused of being, is what Eiseley was--a "'midnight optimist'--for amid the shape shifting of experience, Wilbur's poems much like his friend Eiseley's brooding essays, can sometimes find grounds for a most-cautious hope that things and life somehow do make sense, perhaps even on their own" (Wilbur's Poetry 42).

For Wilbur, poetry is a way of reaching for something, a way of distilling and preserving an intense consciousness of being: "A poem amounts to rendering an experience, and other ideas and experiences

which you associate with it, as fully-stated as possible. Very seldom . . . do you accomplish in life that kind of fullness of consciousness. Life isn't that concentrated. Mostly it's 'splendid waste,' as Henry James said" (qtd. in Broughton, "An Interview with Richard Wilbur" 145). Wilbur's poetry is filled with an intense longing and reaching after something elusive. Peter Stitt in The World's Hieroglyphic Beauty writes that "Wilbur is always reaching 'Beyong the faint sun, / Toward the hid pulse of things'" (14). William Heyen says that Wilbur's vision binds him to this world but hints at some transcendent through a recreation of "the numina of particulars" ("On Richard Wilbur" 631). Heyen senses in Wilbur's poetry "something always just past the threshold of realization, something elusive, something toward which his formal structures edge and with which they bump shoulders . . . "; he finds "a whole spirit's agonizing for something that will suffice . . . [and] that spirit's joy in finding that in its world there is something that sometimes will" (634). In an interview with Poetry Miscellany, Wilbur said that "[l]anguage for the poet is surely always a language of desire . . . . of the Platonic Eros embodied somehow in the words of the poem. *We create art because of what we can't have and because of our insatiable desire to have it*" (qtd. in Jackson, Acts of Mind 141; emphasis added). He recalls Yeats' observation that "it is the business of the poet to remember Eden."

Wilbur is one of five poets in whose work Peter Stitt sees "a quest through the physical world in search of an essence of meaning

that is felt but never quite seen, desired but never quite defined." Stitt believes that Wilbur along with Robert Penn Warren, Louis Simpson, William Stafford, and James Wright each "love the physical world to such a degree that they sense within it some transcendent meaning, some hovering aura of belief" and that each therefore undertakes a quest "to discover that hidden meaning by reading the 'hieroglyphic' nature of the physical universe" (The World's Hieroglyphic Beauty 2). In Wilbur's poetry (as in the others studied), Stitt sees a movement "from the concrete toward the abstract, from the physical toward the spiritual, from the body toward the mind" (3). However, Stitt finds that Wilbur like the others is neither didactic nor doctrinaire and does not attempt to make the world more meaningful than it actually is. Stitt says that these poets "would not choose to impose, deductively, a preformulated set of truths upon a reality that achieves much of its beauty from its teasingly ambiguous nature." Instead, Stitt describes a method borrowed from the sciences: " . . . they prefer . . . to draw inductively from within the fabric of the real whatever meaning may be found" (3).

Stitt finds in Wilbur's poetry a mimesis of the intricacy of creation. Refuting the critics who have found Wilbur's poems too exquisite, Stitt says that "Wilbur's poems are elaborate, elegant celebrations of the created world, art works as carefully and harmoniously constructed as the reality they praise." Although Wilbur recognizes "the existential primacy of material reality," Stitt

says that Wilbur recognizes a spiritual reality as well and tries to bring both realms together in metaphor (The World's Hieroglyphic Beauty 3). Stitt points out Wilbur's definition of *grace* in his poem of that name: "flesh made word / Is grace's revenue" (Poems 384). As Stitt sees it, Wilbur reverses the standard Christian view that "grace is word made flesh":

> . . . it is the poet's function, in his attempt to read God's mind . . . his attempt to match God's creative intelligence with his own pale version of the same thing, to change that manifest grace back into words. The principle of the beautiful--which in this context is the perceiving, the recording, the altering, the ordering creative imagination of the poet . . . changes the raw materials of reality into a version of the ideal, while ever admitting the uncertainty, even the impossibility, of the task" (The World's Hieorglyphic Beauty 33).

According to Stitt, Wilbur's "central thematic concern" is the "coexisting, comingling, interpenetrating" of the physical and spiritual realms (17).

Obviously a number of critics have not fallen into the patterns of negative comment Woodard identified. Writing in 1977, the same year Woodard decried the predictable negativism of Wilbur's critics, Anthony Hecht in "The Motions of the Mind" ennumerated what he sees as Wilbur's virtues:

> a superb ear . . . for stately measure, cadences of a slow, processional grandeur, and a rich, ceremonial orchestration. A philosophic bent and a religious temper . . . . Wit, polish, a formal elegance that is never haughty or condescending . . . .

> an unfeigned gusto, a naturally happy and grateful response to the physical beauty of life, of women, of works of art, landscapes, weather, and the perceiving, constructing mind that tries to know them . . . . the most kinetic poetry . . . a vision of action, of motion and performance. (123)

In his notebooks which were published posthumously, Theodore Roethke expressed his admiration of Wilbur in terms of grace:

> Wilbur: can look at a thing, and talk about it beautifully, can turn it over in his mind, and draw truths from a scene, easily and effortlessly (it would seem)--though this kind of writing requires the hardest kind of discipline, it must be remembered. Not a graceful mind--that's a mistake--but *a mind of grace*, an altogether different and higher thing" (qtd. in Hecht, "The Motions of the Mind" 128; emphasis added).

Among the admirers of Wilbur's poetry and as opinionated as his detractors, William Heyen declares that "Wilbur's poems are the right and inevitable outgrowth of a poetic morality whose integrity is beyond question" (625).

In "The Bottles Become New, Too" Wilbur writes that "[i]n each art the difficulty of the form is a substitution for the difficulty of direct apprehension and expression of the object." He finds that "paradoxically it is a respect for reality that makes a necessity of artifice" (220). Given that the formal aspects of poetry such as meter and rhyme are its most primitive elements and that the sound of a poem addresses the roots of our beings before we understand the sense, Robert Shaw asserts that "the poem whose formal effects are most conspicuous is . . . the most radical in its aim and method"

(176). Shaw points out that form allies poetry to both religion and nature: "Form in poetry takes its rise from form in primitive religious ritual, the aim of which is not to estrange men from nature, but to integrate them anew into the patterned fabric of the cosmos" ("Richard Wilbur's World" 176). Shaw describes Wilbur's poetry as "sacramental" because "his intricately patterned poems reflect the discovery of patterns of natural beauty; and the poet's art thus strives to be an adequate analogy to the surrounding creation." Wilbur "continually contemplates, praises, and seeks to realize in his own writing" the creative energy he sees around him both in nature and in art and "[t]hrough an intensity of focus he suggests the informing spiritual energy present in the appearances that capture his attention" (Shaw 177). Wendy Salinger says that for Wilbur his "craft is his mantra, evoking the deity it embodies. Its properties are holy. To neglect any of the functions of language would be to lessen the efficacy of that mantra. Thus: the consummate craftsman, the master worshipper" (Introduction 17-18).

Attracted by what he calls Wilbur's "dramatism, camouflaged by excellence of form," Russian-American Nobel Laureate Joseph Brodsky finds that "a regular meter and exact rhymes shaping an uncomfortable thought are far more functional than any form of free verse" because formal verse "gets a sense of chaos being organized" while free verse gives "a sense of dependence on and being determined by chaos" ("On Richard Wilbur" 204). Brodsky says that "[f]rom what one could call a moral point of view, the former is more

important than the latter. Even in the event that it is not organization, but nothing more than a form of resistance to chaos. For in the physical world only resistance is possible" (204). Insisting that "it is impossible to speak of life in an open text," Brodsky declares that the formal perfection of Wilbur's poems is "nothing more than a mask" and that "the idea is far away from the perfection of the text" (205). For Brodsky, "[t]he modern art of the mask is the art of creating a scale against which things can be measured" (205). Enjer J. Jensen affirms Brodsky assessment, thereby refuting Holmes and Jarrell. Jensen says that "Wilbur's poems create beautiful shapes for the experiences they record, but often the very beauty of the designs may conceal from us the struggle and anguish of the experiences themselves" ("Encounters with Experience" 245). John Byron Hougen finds that, in Wilbur's poetry, discipline is the path to ecstasy. Hougen believes Wilbur "remains dedicated to formal discipline precisely because it is capable of moving beyond order to evoke vitality, mystery, and transcendence" (The Poetry of Richard Wilbur 22)

Bruce Michelson, the author of Wilbur's Poetry: Music in a Scattering Time and one of Wilbur's staunchest admirers and most perceptive critics, defends the poet's "astonishing use of language," saying that it may be "as daring an experiment in poetry as we have seen in the past four decades." Michelson also calls it a mistake to think of Wilbur, often perceived as "a lone Chrisitan in an age which has forgone faith," as a poet "of safe creeds and certainties" (5).

Michelson finds one thing sure:

> Wilbur's experimentation with words is not some handsome machine for delivering safe messages or dressing up comfortable or commonplace observations, but rather a labor to recover the power of words as magical, incantatory, creative forces. His famous word-play seems to be the essence of his imaginative transcendence of the world, as well as his reconciliation, such as it is, *with* the world. (36)

Michelson makes the case for reading Wilbur "as a rare kind of American artist, a poet who . . . forces a widening of our sense of what it is to be, to think, to believe, and to dread, and who can meld much of the pain and the light of human experience into one rich utterance." Michelson also finds Wilbur to be "a 'darker,' more complex, passionate, and original poet" than generally thought; he calls Wilbur "a serious artist for an anxious century" and describes his poetry as "many-faceted, personal, and intense" (4).

Wilbur once said that he considered himself "a little more Emersonian" than Frost because "I do think that we and the birds, we and the trees, are part of one scheme" (qtd. in Beacham, "Poetry as Performance" 218). Several critics have come to see Wilbur as a "nature poet." He meets what Robert F. Sayre defines as the two essentials of American nature poetry--"affection for nature and the Transcendentalist sense of correspondence between it and man" ("A Case for Richard Wilbur as Nature Poet" 155). George Monteiro believes that Wilbur shares with Thoreau and Frost a vision of redemption through nature ("Redemption Through Nature" 804-806).

Robert Langbaum lists Wilbur among the poets who practice "The New Nature Poetry."[18] Michelson declares adamantly that Wilbur is "a superb nature poet, writing about a nature which changes and constantly recreates itself, awakening that wonder in which one seems to transcend, for moments here and there, separation from the general scheme of things" (Wilbur's Poetry 42). Michelson says that for Wilbur words "can be a regenerative force, catching not just diversity, but suggesting unity that might lie out beyond diversity" (43). Michelson even describes Wilbur's poetry in metaphors of science. He writes that in the poems "significations can move away from one another, range high and wide in opposite directions, then somehow reconverge, like rays of light traversing vast distances, following some Einsteinian principle, some secular mystery of the physical sciences" (42). Michelson sees in Wilbur's poems moments of "imaginative engagement with the world" which set off "a flash like a discovery *in* the world" (42). The basis of Wilbur's sacramental vision has always been intense, careful observation of the things of this world, a persistent fidelity to seeing and to saying what he sees.

Donald Hill in Richard Wilbur, his careful reading of Wilbur's first four books of poetry, sees in Wilbur a mistrust of, in Poe's words, "'the scientific spirit and the universal prosaism which accompanies it.'"

> In "All These Birds," Wilbur gives some illustrations of the way in which, in the eye of creeping science, 'the monsters of the

> sky / Dwindle to habit, habitat, and song.' His dismay is . . . very much in the spirit of Poe (as in that of most other poets from Blake to the present moment). (Hill 164)

Hill believes that a number of Wilbur's poems "exalt the imagination over mere fact."[19] While Hill is right that Wilbur would disdain a reductionist attitude in science that would try to comprise the world in facts and formulas alone, Wilbur himself--like Marianne Moore--often finds in facts a place for the imagination to begin. For example, his poem "Cicadas" is built around the irony that the cicada "singing / all his life" cannot hear. The French entomologist Henri Fabre discovered that fact "by firing all the municipal cannon / under a piping tree" (Poems 337). Like Thoreau, Wilbur has a naturalist's eye and loves the details of plant and animal, of earth, air, and water. His poem "Water Walker" grows around the life cycle of the caddis fly. Out of the facts of geology and evolution Wilbur builds "On the Marginal Way," and he discovers terror in the facts of astronomy and cosmology in his poem "In the Field." "A Grasshopper" anticipates chaos theory. "Children of Darkness" delightedly observes and names species of saprophytic fungi. The x-ray facts of "phlebolith / And calculus" become the nidus about which forms "To His Skeleton," a piece of *memento mori* both charming and terrifying. "Gnomons" expresses the curiosity about facts of natural world--light and shadow--shared by two religious men (Wilbur and Bede) across thirteen centuries. The poems "Seed Leaves" and "Alatus" have as their central images close observations of the seasonal cycles of plant

birth and death. "Trolling for Blues" dredges the depths of what evolution has changed and has not changed. Peter Harris remarked of Wilbur's poetry that "[w]hatever else he believes, Wilbur trusts that we lie in the lap of an immense intelligence" (417), and he delights in the sprezzatura of creation.

Though Hill is right that neither Poe nor Wilbur would have the imagination bound by "mere fact," I think that both Wilbur and Poe discovered that science is much more than fact. Good science like good poetry requires imagination and hard work. Science shares with poetry and religion a sense of the mysteries of the world and a passionate desire to explore them. Wilbur honors the imaginative leaps of science which have changed the ways we see the world. Aristarchus, the first-recorded expositor of a heliocentric theory, brings his "[i]nsight and caluclation" to "Icarium Mare." Euclid receives mention in "O" and Fabre in "Cicadas." "Lamarck Elaborated" takes as its starting point a statement ("The environment creates the organ") by Jean Baptiste Lamarck, the eighteenth-century French pioneer of the theory of biological evolution. "A Hole in the Floor" reminds Wilbur of the German archaeologist Schliemann's sucessful search for the nine-times buried city of ancient Troy. Wilbur's "The Fourth of July" is itself a plenitude of science and imagination: The Oxford mathematician and logician Charles Dodgson rows across the borders of logic into Wonderland. The Swedish naturalist Carolus Linnaeus, who--like the poet who writes of him--was possessed by a "love of all things made," struggles (like a poet) with the *terms* of his

science in *terms* of his faith. Copernicus, the Polish clergyman whose study of the heavens subverted the Christian cosmos, does not hesitate "to risk / His dream-stuff in the fitting-rooms of fact" (he simply evaded publishing it). And in "Worlds," Isaac Newton, "who had grasped all space" in his calculus, felt "that he'd but played / With a few shells and pebbles on the shore / Of that profundity he had not made" (Poems 37). In his poetry Wilbur celebrates science in its careful attention ("due regard") to the things of this world and in its imaginative leaps toward understanding the processes that, like the poetic, religious imagination, bind all things together.

Hill claims that Wilbur, unlike Poe, does not surrender "the Earth in despair to science and prose" (164), but Kenneth Johnson believes that Wilbur does indeed do just that. In his essay "Virtues in Style, Defect in Content," Johnson says that Wilbur is "a product of the scientific point of view" who finds "precious little in tangible reality other than 'what he sees.'" What little he does find is chaotic and terrifying, but mostly, Johnson says, Wilbur finds nothing at all (213). It is amazing how truth can be strewn among absurdities. Johnson is right: Wilbur is a product of the scientific point of view (also the religious and the poetic), and Wilbur does find chaos and terror in the world: He reports what he sees. Wilbur is also deeply religious in the best sense and finds in the world joy, beauty, delight, and inexorable goodness.

CHAPTER I
MYSTERY, ALLURE, AND DREAD

O Lord my God, how deep are your mysteries!
--Augustine

I require of you only to look.
--Teresa of Avila

The power of the visible
is the invisible.
--Marianne Moore

The darkness held a presence that was all the more felt
because it was not seen.
--William James

. . . It would be enough
If we were ever, just once, at the middle, fixed
In This Beautiful World of Ours and not as now,
Helplessly at the edge, enough to be
Complete, because at the middle, if only in sense,
And in that enormous sense, merely enjoy.
--Wallace Stevens

What terrible questions we are learning to ask.
--Emerson

In Science and the Modern World, the philosopher and mathematician Alfred North Whitehead defines religion as a

romantic quest in pursuit of a pervasive mystery that is as alluring and powerful as it is elusive:

> Religion is the vision of something which stands beyond, behind, and within, the passing flux of immediate things; something which is real, and yet waiting to be realised; something which is a remote possibility, and yet the greatest of present facts; something that gives meaning to all that passes, and yet eludes apprehension; something whose possession is the final good, and yet is beyond all reach; something which is the ultimate ideal, and the hopeless quest. (191-192)

Whitehead describes religion as revelation within individual experience rather than traditionally received truth. It is religion stripped of dogma but saturated with longing, religion pared down to the sense of mystery and meaning human beings either find or project on the cosmos. It is an unattainable ideal, an unreachable good that makes possibility eternal.

Robert Rosthal in the introduction to his translation of Gabriel Marcel's Creative Fidelity describes Marcel's concept that a mystery "is not a lacuna in our knowledge or a void to be filled," nor is it a problem susceptible to linguistic analysis or technical investigation:

> *A mystery is something which while insoluble in principle is not senseless.* It is an aspect of our experience which is inexpressible, hence inaccessible to communicable knowledge. But it still can be spoken of in a *suggestive* if not an informative way. (xxv)

What is left over when cognitive knowledge does not exhaust reality we call mystery. It is discovered only by extra-linguistic thought and therefore cannot be spoken of directly but only by indirection--what R. Hepburn called "an appearance of meaning . . . showing the direction in which we are to look for the meaning which will finally elude us" (qtd. in Rosthal xxii).

Wordsworth defined mystery as "the heavy weight of all this unintelligible world," but he found in that heavy weight joy and consolation and endless matter for the developing mind. In Book II of The Prelude, he says that even though he could not think or say it because of the "sad incompetence of human speech," he felt " . . . the sentiment of Being spread"--

> O'er all that moves and all that seemeth still;
> O'er all that, lost beyond the reach of thought
> And human knowledge, to the human eye
> Invisible, yet liveth to the heart;
> O'er all that leaps and runs, and shouts and sings,
> Or beats the gladsome air; o'er all that glides
> Beneath the wave, yea, in the wave itself,
> And mighty depth of waters. (Prelude 2:401-409)

Implicitly in these lines and explicitly in the following from "Tintern Abbey," Wordsworth describes his experience of the mystery of Being as joy:

> A presence that disturbs me with the joy
> Of elevated thoughts; a sense sublime
> Of something far more deeply interfused,

> Whose dwelling is the light of setting suns,
> And the round ocean and the living air,
> And the blue sky, and in the mind of man. (210)

Einstein described this feeling of mysterious Being as "the center of true religiousness," the recognition "that what is impenetrable to us really exists, manifesting itself as the highest wisdom and most radiant beauty which our dull faculties can comprehend only in the most primitive forms." Einstein considered this impenetrable existent to be the source of science, art, and religion: "The most beautiful thing we can experience is the mysterious. It is the source of all true art and science . . . . This insight into the mystery of life, coupled though it be with fear, has also given rise to religion" (Living Philosophies 6).

Blessed with an extraordinary gift for wonder, Einstein found mystery not only in the impenetrability of nature; paradoxically, he found the "eternal mystery of the world" in its "*comprehensibility*" as well (Later Years 61; emphasis added). Einstein found the fact that the world is "comprehensible . . . a miracle." Amazingly, the human mind is capable of discovering and understanding some of the processes of nature. Like Einstein, Julian Huxley found that knowledge led to mystery. He writes in Knowledge, Morality and Destiny that "[m]an inevitably discovers that existence involves mystery," and Huxley suggests that the scientific discovery of the unexpected unity of all nature is "[p]erhaps the latest revelation of inherent mystery." For Huxley mystery did not require God: "All the

realities which were taken out of nature and put together in the supernatural concept of God can now be put back into the natural process." If their relation to the whole natural process can be "properly grasped," Huxley believes that the realities once deposited in the divine "can exert at least as much and perhaps more force than they did under the old dispensation" (248). In Science and Religion: A Critical Survey, Holmes Rolston, III, observes that "[t]hat the magic stays even when God is banished" (253):

> The world can be penetrated by thought, but we are left in awe both that the world is so built and that we are so built, that nature is comprehensible and that we, the evolutionary product of nature, are up to its comprehension--only in part, but nevertheless far beyond anything that we can claim any right to know, far beyond what our ancestors ever dreamed of knowing, far beyond what evolutionary theory predicts that we should know. (245)

The very knowing which would seem to erase mystery is itself mysterious and leads to even greater mysteries. Victor Weisskopf, a theoretical physicist, observed that "[w]hen we know more, we have more questions to ask. Our knowledge is an island in the infinite ocean of the unknown, and the larger the island grows, the more extended are its boundaries toward the unknown" (Weiskopff 101). Rolston declares that "[o]ur beams probe farther out, only to confront more dark sky. There is an explosion of knowledge but it excites an explosion of mystery. Science removes the small mysteries to replace them with bigger ones" (245).

In religion and art, mystery, that which is sensed but which cannot be said, has been gestured at in myth and ritual, in poetry and symbol. Trying to understand the nature of mystery as it is expressed in religions, Rudolph Otto in The Idea of the Holy describes common perceptions and experiences that transcend differences in belief. Otto recognizes two aspects of religion, the rational and the non-rational. Rational, theistic religion describes attributes of God in terms of intellectual concepts which are definable in words--"spirit, reason, purpose, good will, supreme power, unity, selfhood" (1). Although Otto considers rational conceptions about God to affirm "a religion's high rank and superior value," he denies that "the essence of the deity can be given completely and exhaustively in such 'rational' attributions" (2). The very language that conveys these concepts, "the traditional language of edification," tends to limit religion to the rational: "All language, in so far as it consists of words, purports to convey ideas or concepts. . . . And hence expositions of religious truth in language inevitably tend to stress the 'rational' attributes of God" (2).

Otto believed that not only do these rational attributes not exhaust the idea of deity but "that they in fact imply a non-rational or supra-rational Subject of which they are predicates" (2). Otto describes the "Subject" itself as a deeper essence which cannot be comprehended in strictly rational terms. Otto says that "the holy" contains "a quite specific element or 'moment'" which cannot be thought about conceptually (i.e., rationally) and cannot be expressed

in words. Like the beautiful, the holy "completely eludes apprehension in terms of concepts" (5). Because the "holy" had also come to have a connotation of the ethical, Otto coined a new term, the "numinous," to describe "that aspect of the deity which transcends or eludes comprehension in rational or ethical terms" (Harvey xvi). With the numinous, Otto concentrates on that aspect of the holy which he calls the "real innermost core" of every religion and which in its "unique original feeling-response" means something "quite other than 'the good'" (6). Otto says that the numinous state of mind is "irreducible to any other" and "admits of being discussed," but "cannot be strictly defined" (7). The numinous cannot be taught: "it can only be evoked, awakened in the mind; as everything that comes 'of the spirit' must be awakened" (7).

Numinous consciousness is the feeling of being in the presence of the *numen*, the "*mysterium tremendum*." Otto says that this feeling of being in "the presence of that which is a mystery inexpressible and above all creatures" is "the deepest and most fundamental element in all strong and sincerely felt religious emotion" (12-13). The *mysterium tremendum* escapes rational conceptualization:

> Conceptually *mysterium* denotes merely that which is hidden and esoteric, that which is beyond conception or understanding, extraordinary and unfamiliar. The term does not define the object more positively in its qualitative character. But though what is enunciated in the world is negative, what is meant is something absolutely and intensely positive. (13)

Although the *mysterium tremendum* cannot be enclosed in the words that speak human concepts, Otto is able to identify three qualities which are suggested in the adjective *tremendum*--1) awe or "absolute unapproachability," 2) *majestas* or "absolute overpoweringness," and 3) the "urgency" or "energy" of the numinous object.

The first of these qualities, absolute unapproachability, began in religious history with a peculiar feeling of dread, a sense of the uncanny or weird. This daemonic dread is expressed in the Old Testament as "a terror fraught with an inward shuddering such as not even the most menacing and overpowering created thing can instil. It has something spectral in it" (14). Though its primitive beginnings were in "daemonic dread," the experience of religious awe, according to Otto, has nothing to do with intensity; rather, it is based entirely of a feeling of *uncanniness*. As religion evolves and is purified of the daemonic, the sense of the dread and awfulness is not lost but civilized; losing its primitive craziness, the "'shudder'" appears "in a form ennobled beyond measure where the soul, held speechless, trembles inwardly to the farthest fibre of its being" (16-17). The dread becomes "a mystical awe"--"the ineffable something that holds the mind" (17). The second element contained in *tremendum*, the sense of being in the presence of "absolute overpoweringness," occurs along with the sense of dread. Felt as "objective and outside the self," the numinous excites in the perceiver a feeling of "creature consciousness," the experience of

being "submerged into nothingness before an overpowering, absolute might of some kind," which cannot be itself described except "indirectly through the tone and content of a man's feeling-response to it" (10). The third quality inherent in *tremendum*, the sense of the urgency or energy of the numinous object, directly challenges the rational concept of a "'philosophic'" God who can be defined. This nonrational urgency or energy reduced to sayable human analogues has been described as "wrath" or "vitality, passion emotional temper, will, force, movement, excitement, activity, impetus" (23). Numinous energy is "a force that knows not stint nor stay, which is urgent, active, compelling, and alive" (24).

Having struggled to say the ineffable merely alluded to in the adjective *tremendum*, Otto tries, "by hint and suggestion," to say what the substantive *mysterium* means. He says that "in the religious sense, that which is 'mysterious' is . . . the 'wholly other' . . . that which is quite beyond the sphere of the usual, the intelligble and familiar" and fills the mind with "*Stupor*," the feeling of "blank wonder, an astonishment that strikes us dumb, amazement absolute" (26). Attempts to systematize in myth or dogma such a religious experience of holy terror, Otto says, inevitably destroy the experience itself: "They are the source from which springs, not religion, but the rationalization of religion, which often ends by constructing such a massive structure of theory and such a plausible fabric of interpretation, that the 'mystery' is frankly excluded" (27).

The feeling or consciousness of the "wholly other," according to Otto will "attach itself to, or sometimes be indirectly aroused by means of, objects which are already puzzling upon the 'natural' plane, or are of a surprising or astounding character; such as extraordinary phenomena or astonishing occurence or things in inanimate nature, in the animal world, or among men" (27).

The mysterious remains "absolutely and invariably" beyond human understanding not just because of "irremovable" limits to our knowledge but also because the "wholly other" has a nature inherently incommensurable with the human. It belongs to a separate reality that is not contained within ours: " . . . it is a thing that 'doesn't really exist at all' . . . [but] at the same time arouses an irrepressible interest in the mind" (28-29). Mysticism, contrasting the numinous with the natural, calls the former "'that which is nothing'"--"opposite of everything that is and can be thought" (29). Otto says that the "'void'" of eastern mysticism is like the "'nothing'" of the western mystic, a "numinous ideogram of 'the wholly other '" (30). The words *transcendent* and *supernatural* designate the unique reality and quality of the "wholly other" which can be *felt* but cannot be *thought* in clear conceptual terms (30).

Though the numinous inspires dread, Otto says it provokes an equivalent fascination and becomes the object of human "search and desire and yearning": "Possession of and by the numen becomes an end in itself; it begins to be sought for its own sake," and, Otto says,

sometimes "the wildest and most artificial methods of asceticism are put into practice to attain it" (32-33).

> . . . the *mysterium* is experienced in its essential, positive, and specific character, as something that bestows upon man a beatitude beyond compare, but one whose real nature he can neither proclaim in speech nor conceive in thought, but may know only by a direct and living experience." (33)

Otto says that the "moment of fascination" is felt "as a strange and mighty propulsion towards an ideal good" which is "fundamentally non-rational" and known only to religion; in its "yearning and presentiment," the mind recognizes the numinous "behind the obscure and inadequate symbols which are its only expression" (36). Words fail because "our language has no term that can isolate distinctly and gather into one word the total numinous impression a thing may make of the mind" (40). Otto considers the mystical experience of the numinous proof that "above and beyond our rational being lies hidden the ultimate and highest part of our nature, which can find no satisfaction in the mere allaying of the needs of our sensuous, psychical, or intellectual impulses and cravings" (36).

The sublime and the numinous share the same paradoxical characteristics and effects. They are both daunting and attracting, arousing both fear and joy; they both humble yet exalt; both circumscribe us but extend us beyond ourselves. Otto says the

sublime and the numinuous may excite one another or one may pass over into the other (42).

> Whatever has loomed upon the world of his ordinary concerns as something terrifying and baffling to the intellect; whatever among natural occurrences or events in the human, animal, or vegetable kingdoms has set him astare in wonder and astonishment--such things have ever aroused in man, and become endued with, the 'daemonic dread' and numinous feeling, so as to become 'portents', 'prodigies', and 'marvels.' (64)

Otto says that in the arts "the most effective means of representing the numinous is 'the sublime'" (65).

Unlike Otto who concentrated on the irrational aspect of religion in The Idea of the Holy, Mircea Eliade in The Sacred and the Profane attempts to present the sacred "in all its complexity." Eliade focuses on human efforts to achieve transcendence through contact with the sacred in the profane world. According to Eliade, the hallmarks of "*homo religiosus*" are a belief in "an absolute reality, the *sacred*, which transcends this world but manifests itself in this world, thereby sanctifying it and making it real" and a conviction that human existence realizes its potentialities through participation in reality (202). Eliade defines a *hierophany* as the "*act of manifestion* of the sacred," an occasion in which "something sacred shows itself to us" (11). A hierophany is a discrete, mysterious act in which "something of a wholly different order, a reality that does not belong to our world" manifests itself "in objects that are an integral

part of our natural 'profane' world" (11). Eliade says that the object which manifests the sacred "becomes something else, yet it continues to participate in its surrounding cosmic milieu" (12). According to Eliade, all of nature can reveal itself as a "cosmic sacrality" to a religious person who is open to experiencing the sacred: "The cosmos in its entirety can become a hierophany" (12). Symbols become the means whereby the religious person binds the actual and the sacred and creates a mnemonic for the hierophanic experience: " . . . through symbols . . . man finds his way out of his particular situation and 'opens himself' to the general and the universal. Symbols awaken individual experience and transmute it into a spiritual act, into metaphysical comprehension of the world" (211).

Eliade describes the sacred and the profane as "two modes of being in the world, two existential situations assumed by man in the course of his history" (14). The religious man in "archaic societies" attempted to live in the sacred or near to consecrated objects because the primitive equated sacredness with power: "The sacred is saturated with *being*. Sacred power means reality and at the same time enduringness and efficacity. The polarity sacred-profane is often expressed as an oppositon between *real* and *unreal* or pseudoreal" (12-13). Eliade says that " . . . the *completely* profane world, the wholly desacralized cosmos, is a recent discovery in the history of the human spirit" (13).

Space is not homogeneous for the religious man but is broken into sacred space which is a strong, significant space and profane

space which is "without structure or consistency, amorphous" (20). Eliade says that " . . . the religious experience of the nonhomogeneity of space is a primordial experience" corresponding to a founding of the world (20-21). When sacred space is manifested in a hierophany, a "break is effected in space that allows the world to be constituted" and a fixed point, the central axis of all future orientation is revealed. An area of absolute reality opposes the nonreality of surrounding space (21). "Every sacred space implies a hierophany, an irruption of the sacred that results in detaching a territory from the surrounding cosmic milieu and making it qualitatively different" (26). A theophany consecrates the place where it occurs, making it an opening to what is above, a place where communication with heaven can occur (26). "Religious man's desire to live *in the sacred* is in fact equivalent to his desire to take up his abode in objective reality, not to let himself be paralyzed by the never-ceasing relativity of purely subjective experiences, to live in a real and effective world, and not in an illusion" (28).

Eliade says that the efficaciousness of the ritual means by which a sacred space is constructed depends upon how well and in what measure the effort "*reproduces the work of the gods*" (29). Eliade declares that "for religious man every world is a sacred world" (29). Creating a sacred space reproduces on the microcosmic scale the original act of creation--a repetition of the primordial act that transformed chaos into cosmos: " . . . the religious moment implies the cosmogonic moment" (30). Eliade says that creation inevitably

implies "a superabundance of reality . . . an irruption of the sacred into the world" (45). Therefore, in broadest terms, Eliade declares that "*every construction or fabrication has the cosmogony as paradigmatic model.* The creation of the world becomes the archetype of every creative human gesture, whatever its plane of reference may be" (45). Building a house, primitive man created for himself a universe "*by imitating the paradigmatic creation of the gods, the cosmogony*" (56). According to Eliade, religious man possesses "an unquenchable ontological thirst"--a thirst for being--and a "profound nostalgia" to inhabit a divine world (64-65). By creating the world he inhabits, the religious man "not only cosmicizes chaos but also sanctifies his little cosmos by making it like the world of the gods" (65). Eliade's description of the drive to create a sacred space by imitating the cosmogonic paradigm recalls Coleridge's description of the primary imagination which he defined as "the living Power and prime Agent of all human Perception, as a repetition in the finite mind of the eternal act of creation in the infinite I AM" (Biographia Literaria 167). Like a sacred mythological pole planted at the center of the world and communicating with heaven, the imagination organizes chaos into the world of a poem and opens an avenue to the transcendent. A poem or other work of art may, therefore, be considered an existential construct that mimics that paradigmatic creation; it creates a sacred space where the transcendent becomes the immanent.

Just as he covets sacred space which puts him in contact with the transcendent, religious man, according to Eliade, desires sacred time, time which is "indefinitely recoverable, indefinitely repeatable"; sacred time is "*a primordial mythical time made present*" (68-69). The cosmogony, the creation of the world, was "*the supreme divine manifestation*, the paradigmatic act of strength, superabundance, and creativity" (80). Religious man seeks to "reactualize" the strong, sacred "*time of origins*, the stupendous instant in which a reality was created, was for the first time fully manifested . . ." (81). For religious man, sacred time makes possible ordinary time, "the profane duration in which every human life takes its course" (89). Describing the religious man's desire to recapture the paradisal situation at the beginning of time, Eliade admits that the myth of the eternal return can be seen to be an evasion of the new and a failure to take responsibility "for a genuine historical existence" (93). Eliade, however, sees primitive religious man as taking "*a responsibility on the cosmic plane*, in contradistinction to the moral, social, or historical responsibilities that are alone regarded as valid in modern civilizations" (93).

Eliade says that for religious man, " . . . nature is never only 'natural' . . . . the world is impregnated with sacredness" and it has a transparency that "spontaneously reveals the many aspects of the sacred" (116-117). Religious man apprehends "supernature" through nature. Cosmic symbolism adds new value to an object or action but without affecting its "peculiar and immediate values" (167).

Disagreeing with Hegel's assertion that primitive man is "'buried in nature,'" Eliade says that an existence open to the world is not an unconscious existence: "Openness to the world enables religious man to know himself in knowing the world . . . " (167).

Writing in the mid twentieth century, Eliade describes the modern industrial era as a process of the gradual desacralization of the cosmos which has been accomplished by scientific thought, especially the "sensational discoveries of physics and chemistry" (51). He says that "for the nonreligious men of the modern age, the cosmos has become opaque, inert, mute; it transmits no message, it holds no cipher" (178). But Eliade also finds that the desacralization of nature is not limited to "nonreligious men"; the Christianity of industrial society, especially among intellectuals, "has long since lost the cosmic values that it still possessed in the Middle Ages," thereby greatly impoverishing its religious sense:

> The cosmic liturgy, the mystery of nature's participation in the Christological drama, have become inaccessible to Christians living in a modern city. Their religious experience is no longer open to the cosmos. . . . it is a strictly private experience; salvation is a problem that concerns man and his god; at most man recognizes that he is responsible not only to God but also to history. But in these man-God-history relationships there is no place for the cosmos. From this it would appear that, even for a genuine Christian, the world is no longer felt as the work of God. (178-179)

Twentieth century man, according to Eliade, lives alone within his own soul in a cosmos from which he is estranged.

The German philosopher Martin Heidegger demythologized and intellectualized the Judeo-Christian myth into the lone individual's private attempts in a fallen world to understand the mystery of Being and to live a redeemed, what he calls an "authentic," existence in the ever-present knowledge of death. Heidegger describes Being as "that which determines entities as entities," but says that Being itself is not an entity. Rather, Being is the light that illuminates beings, the primal energy that holds things together as identifiable, separate beings. In Mirrors of Man in Existentialism, Nathan A. Scott, Jr., interprets Heidegger's concepts of being and Being:

> Whereas *a* being is simply that-which-is-present, that-which-is-in-the-open, Being-itself is that Openness (*Offenheit*) which lights up and shows forth the things of earth--that luminous Presence, that primal Power of "letting-be," which allows things to stand out before the gaze of the mind. (108)

Being is generous; it *lets be*, investing form in a multiplicity of beings. Scott in The Poetics of Belief describes the generosity of Heidegger's concept of Being: "Being does not hoard up its plenitude within itself . . . but rather, with an infinite liberality, takes as its mission the bestowal of itself upon the world of time and finitude and contingency" (157). Heidegger says that Being "hails" us by allowing things to "come to presence" so that we can recognize the Presence of Being in them. The presence of beings "is the hail, the salutation, which Being addresses to us" (Poetics 156). Since beings are present to us only because Being has given itself to them,

allowing them to stand out in Openness, Scott says that "any truly meditative thinking must, in effect, be an act of thanksgiving":

> For thinking of the most fundamental kind involves our 'hailing' Being; which is to say that we respond to its primary hail by receiving and accepting the plenitude which it bestows upon us. And since we know this plenitude to be not of our own creation, since we recognize it in no way to be a part of ourselves, since it is the sheer otherness of Being itself and of its self-giving, genuinely meditative thinking becomes, inevitably, an affair of thanksgiving for the incalculable munificence with which Being lets things be. (Poetics 156-157)

Thus, acts of attention to the things of this world imply for Heidegger a recognition of and gratitude toward Being which makes possible all being.

Heidegger declares that "*the central problematic of all ontology is rooted in the phenomenon of time*" (Being and Time 40). Time, Heidegger says, is the horizon of Being and is necessary for understanding and interpreting it. "Time . . . functions as a criterion for distinguishing realms of Being" (Being and Time 39). Being itself is "made visible in its 'temporal' character" (40). In order to discover Being, one must, according to Heidegger, interrogate entitites--beings-in-time. That entity which has priority in working out the question of Being is *Dasein*[1] ("Being-there"), the human mode of being; "*/u/nderstanding of Being is itself a definite characteristic of Dasein's Being*" (Being and Time 32). Dasein possesses both "a pre-ontological understanding of Being" and "an understanding of the Being of all entities of a character other than its own" (Being and

Time 33-34). Heidegger says that Dasein alone responds to Being. According to W. T. Jones, Heidegger's opus magnus Being and Time suggests that the history of humankind is "the history of being amazed by Being, of forgetting and then recalling our wonder." For Heidegger, to be a human is to be open to Being and "the mark of one's openness to Being is one's amazement" (Jones, A History of Western Philosophy 5:290). Amazement before being is inevitable to the attentive because, as Heidegger writes, "[a]t bottom, the ordinary is not ordinary; it is extra-ordinary, uncanny" (Poetry, Language, Thought 54).

"Thrownness," according to Heidegger, is also one of the attributes of Dasein. Dasein has been "thrown" into existence and "[i]t exists as an entity which has to be as it is and as it can be" (Existence and Being 305). Human beings are thrown into the world, into an incomprehensible existence which is not susceptible to logical, rational, teleological, or scientific explanation. Because we are ignorant about both our origins and our destination and have been hurled by birth into a world from which we will be removed by the abruptness of death, we have the sense of being orphans and homeless. Heidegger describes Dasein's awareness of the inevitability of death, the final potentiality for its being, as the knowledge that makes Dasein whole but unfinished and makes possible the living of an authentic existence.[2]

> As long as Dasein is, there is in every case something still outstanding, which Dasein can be and will be. . . . The 'end' of

> Being-in-the-world is death. This end, which belongs to the potentiality-for-Being--that is to say, to existence--limits and determines in every case whatever totality is possible for Dasein. (Being and Time 276-277)

Heidegger defines "existence" as "[t]hat kind of Being toward which Dasein can comport itself" and says that "[o]nly the particular Dasein decides its existence, whether it does so by taking hold or neglecting. The question of existence never gets straightened out except through existing itself" (Being and Time 32-33).

Heidegger says that the "world as world" is disclosed first and foremost by anxiety. Anxiety is not fear caused by any specific threatening entity or situation, rather "[t]hat in the face of which one has anxiety is characterized by the fact that what threatens is *nowhere*" (Being and Time 231). Anxiety is anxious about Being-in-the-world and being confronted with the choices for and against an authentic existence. Inauthenticity seduces us from the anxiety of being-in-the-world, of making the choices that determine our being and living in the present knowledge of death by offering Dasein the security of the self decreed for it by the "levelling down" effect of the anonymous social "they." *They* "disburden" Dasein by setting low average standards of being. "In this averageness with which it prescribes what can and may be ventured, it keeps watch over everything exceptional that thrusts itself to the fore. Every kind of priority gets noiselessly suppressed" (Being and Time 165). Retreating into the self prescribed by *they* relieves us of the burden of being free and distracts us from our mortality. "The profound

problem of what to be is put aside, replaced by a series of trivial questions about what to do" (Jones 5:312), and these what-to-do questions are immediately answered by *they*. Heidegger describes Dasein's inauthentic mode of being as "fallenness." He says that the deceptive surface tranquility that Dasein is leading "a full and genuine 'life'" actually alienates Dasein from its own potential for being and from the understanding that "a potentiality-for-Being . . . must be made free in one's *ownmost* Dasein alone" (Being and Time 222). Heidegger speaks of "uncanniness" as "not-being-at-home," and says that "[i]n anxiety one feels 'uncanny'" (Being and Time 233). Anxiety, however, is the necessary state of an authentic existence. Heidegger says that "anxiety individualizes" bringing Dasein "back from its fall" and making "manifest to it that authenticity and inauthenticity are possibilities of its being" (Being and Time 235).

Heidegger uses the word *Gelassenheit* to denominate the quality which Dasein's alone seems to possess--openness to the mystery of being. He expresses the complexity of the hiddenness of Being, the god who remains unknown, and of the human effort to approach the mystery: "God's appearance . . . consists in a disclosing that lets us see what conceals itself, but lets us see it not by seeking to wrest what is concealed out of its concealedness, but only by guarding the concealed in its self-concealment" (Poetry, Language, Thought 223). Heidegger defines Dasein, "man's Being," as "that living thing whose Being is essentially determined by the potentiality for discourse" (Being and Time 47). Language, by setting us enough

apart from Being to be amazed by it, makes it possible for humans to stand "in the openness of the existent" (Existence and Being 299). Language both hides and reveals: "Language alone brings what is, as something that is, into the Open for the first time" (Poetry, Language, Thought 73); it brings forth "the unconcealedness of what is" (71). Language also intimates what cannot be known; it gestures toward the unsayable: "Projective saying is saying which, in preparing the sayable, simultaneously brings the unsayable as such into a world" (Poetry, Language, Thought 74). In On the Way to Language Heidegger writes that "[t]he untouchable is veiled for us by the mystery of Saying" (qtd. in Jones 5:329).

Scott says that, according to Heidegger, "[m]an dwells upon the earth--in a really human way--only in so far as he transforms 'earth' into 'world,' and he can have a world only if he has language, only if he has a way of being open to Being and of naming the things of earth in which Being resides." In other words, man can have a world "only as he manges in some manner to be a 'poet'" (Scott, Poetics of Belief 160). Art, including poetry, awakens us to the mystery, the vital otherness and shared Being of the things of this world. As Heidegger puts it, "[t]he art work opens up in its own way the Being of beings" (Poetry, Language, Thought 39). Heidegger says the job of the poet, therefore, is to pay heed to being, and he defines poetry as "the establishing of being by means of the word" (Existence and Being 304). "In the work of art something other is brought together with the thing that is made. . . . The work is a symbol" (Poetry,

Language, Thought 20). For Heidegger, poetry is not "otherworldly"; poetry leads man to live on the earth and make a world of it: "Poetry does not fly above and surmount the earth in order to escape it and hover over it. Poetry is what first brings man onto the earth, making him belong to it, and thus brings him into dwelling" (Poetry, Language, Thought 218).

In his essay "What Are Poets For?," Heidegger cites the source of his query in the question Holderlin asks in his elegy "Bread and Wine": ". . . and what are poets for in a destitute time?" (qtd. in Poetry, Language, Thought 91; Holderlin 43). For Heidegger the "destitute time" is the "world's night" when "the divine radiance has been extinguished in the world's history"--the gods have decamped (Poetry, Language, Thought 91). What Holderlin called "the gods," Heidegger called "Being" (Jones 5:327), but both words are names for the unnamable. Holderlin answers the question about the role of poets in the destitute time by suggesting that they are "like the wine-god's holy priests / Who fared from land to land in holy night." Heidegger says the role of the poet in the time of the default of the gods is to sing of what is missing, to utter the holy: "Poets are the mortals who, singing earnestly of the wine-god, sense the trace of the fugitive gods, stay on the gods' tracks, and so trace for their kindred mortals the way toward the turning" (Poetry, Language, Thought 94).[3] The turning which mortals seek occurs when they "find the way to their true nature" (93).

Poetry becomes for Heidegger the path to Being. Poetry discloses the things of the world; it "hails" Being as Being manifests itself in beings. Scott describes how the poet becomes a prism to focus our attention on the light of Being as it shines through being:

> The artist seeks to bring us into a relationship of intense intimacy with a given event, with some quite specific phenomenon. What he invites is an attitude of enthrallment before the sheer singularity of whatever may be the object which he is holding up for attention. . . . he wants to reconstitute our perceptual habits in a way that will restore to us the innocence which is simply enthralled by the bright actuality of the things of earth. (Poetics of Belief 158-159)

Poetry itself is sacramental when it "bespeaks a profound kind of piety toward all the wondrous works of creation," recognizing that each of the concrete particularities of the world's body shows forth the Mystery of Being (Scott 159). In Poetry, Language, Thought, Heidegger writes that truth happens in a work of art when the work discloses the particular being of a being (38).

Whereas Heidegger emphasizes the existential position of the lone human being who must bear the burden of his/her interior self-making, Martin Buber stresses that the self is made and Being discovered only through relationship. Walter Kauffman, himself a philosopher and the English translator of Buber's I and Thou, says that Buber's treatise "appeals to that religiousness which finds no home in organized religion" (Kauffman 38). In I and Thou, Buber describes the basic word pairs that he says define the two kinds of

relationships possible between self and world. The basic words "spoken with one's being" are I-It and I-You. I-You is spoken with one's *whole* being, but I-It can *never* be spoken with one's whole being. Buber says that the I alone does not exist; the I exists only as the partner in one or the other of two basic word pairs. I-It experiences *something* and implies borders separating self and world. The experience is in the self and not reciprocal between I and world. I-You implies a relationship without borders between I and nature, I and men, and/or I and spiritual beings. The I-You relationship enhances the self by acknowledging the You: "I require a You to become; becoming I, I say You" (62). The I is itself diminished by the I-It relationship, but through I-You relationships, the I comes to know the eternal You: "In every sphere, through everything that becomes present to us, we gaze toward the train of the eternal You; in each we perceive a breath of it; in every you we address the eternal You, in every sphere according to its manner" (57). Buber says that "[o]nly as the You becomes present does presence come into being" (63). He defines "presence" as "not what is evanescent and passes but confronts us waiting and enduring" (64). In I-You encounters, the world appears unreliable, always new: "It does not help you survive; it only helps you have intimations of eternity" (84). Like Heidegger, Buber emphasizes the centrality of language to relationship. He describes the I's relationship with nature, men, and spirtual beings in levels of language. With creatures the relation "vibrates in the dark and remains below

language" (56-57). With other men, "the relation is manifest and enters language," but with spiritual beings the relation "lacks but creates language" (57).

Eliade saw a shift from the transcendent to the immanent--God as source, guide, and end of human life being submerged into God-as-process (Buckley 58). Some religious thinkers have turned away from what seem to them untenable myths and archaic ideas of God and have incorporated the concepts of evolution in descriptions of the process of becoming. In Process Theology: An Introductory Exposition, John B. Cobb, Jr., and David Ray Griffin present their interpretation of the theological movement influenced by the process philosophy of Alfred North Whitehead and Charles Hartshorne. Cobb and Griffin define the history of religion as "the inner development of human beings that supervenes upon the completion of the biological evolutionary process" (85). Process theology, unlike existentialism, does not sharply distinguish human life from everything else but instead considers it a "high-level exemplification of reality in general" (13). Process theology assumes that the evolutionary development of the world is rooted in divine creative activity and that all possible values subsist in God[4] as potentials for finite realization but that they must be actualized in order to be enjoyed. "To be, to actualize oneself, to act upon others, to share in a wider community, is to enjoy being an experiencing subject quite apart from any accompanying pain or pleasure" (16-17). To be "actual" means to be a process. The temporal process is a moment by

moment transition from one actual entity to another, and "[p]ersonal human existence is a 'serially ordered society' of occasions of experience" (15). Whitehead uses the word "concresence" for the process of becoming through a bit of time. Consciousness, because it is a selective activity that "gives special importance to a few of the indefinite number of factors in experience," can increase the enjoyment of experience (17).

Echoing Eliade's description of the impulse toward the sacred, Cobb and Griffin say that human beings share a religious drive "to correspond with the really real and to accentuate those dimensions of our existence which we perceive as connecting us with the depths of reality" (21). Unfortunately, when the actual or fully real is believed to be timeless or beyond change, temporal life in the world is devalued (14). Process theology, however, affirms change as the response to a divine being which itself risks change. According to process theology, God is not absolute and unchanging, but is, in fact, the basic source of unrest in the universe, the goad toward novelty stimulating us "to realize new possibilities after the old ones are no longer sufficient to give zest to our enjoyment of being actual" (59). The aim at enjoyment unifies an entity, and God is the source of the attractive possibility, the lure which provokes the act of self-determination: "God is the divine Eros urging the world to new heights of enjoyment" (26). The divine lover operates not by imperative but by persuasion, luring "each occasion toward that possibility for its own existence that would be best for it" (53).

Because God gives up control of the finite occasions of self-actualization in order to increase the possibilities for enjoyment, the divine creative activity involves risk (53). The increased complexity that makes greater enjoyment possible also makes greater suffering possible:

> . . . the development of beings with the capacity to enjoy significant values, and to contribute significant values to those beyond themselves, necessarily meant the development of beings with the capacity to undergo significant suffering, and to contribute significantly to the suffering of others beyond themselves. (73)

According to process theology, only ever-lasting chaos, free of entities capable of experience, could reduce suffering to a minimum.

By stimulating the world to more and more complex development with greater capacity for intrinsic value, God also allowed the development of creatures with more freedom to reject the divine aims. According to process theology, God took the risk to increase the chance of greatness. This model of divine risk-taking has relevance for the human choice of a mode of existence:

> Should we risk suffering, in order to have a shot at intense enjoyment? Or should we sacrifice intensity, in order to minimize possible grief? The divine reality, who not only enjoys all enjoyments but also suffers all sufferings, is an Adventurer, choosing the former mode, risking discord in the quest for the various types of perfection that are possible. (75)

Like existentialism, process theology describes a future that is radically open; in each unique situation, we make the choices that create our existence. "Our existence is a being-in-the-world. There is no self apart form the world or world apart from the self . . . . Our existence is not simply located in our bodies or our heads. The world belongs to it as it belongs to the world" (81). Unlike existentialism's emphasis on the lone individual, process theology emphasizes that "the more we participate with others in community, the more we can become individuals and the more we become individuals, the more richly we participate in community" (82).

Because each occasion is "a selective incarnation of the whole past universe," our actions have an influence on the future. The past is defined as "the totality of that which influences the present," and the future is "the totality of that which will be influenced by the present" (23). Since processes of enjoyment are partially self-creative and the individual creates itself out of the material given to it by the past, the past has real influence but the individual has real freedom. Therefore, our individual activities have moral significance because they will make good or bad use of the past and they will become part of the substance out of which the future is made. "To be moral is to actualize oneself in such a way as to maximize the enjoyments of future actualities, in so far as these future enjoyments can be conditioned by one's present condition" (57).

Process theology seeks the meaning of human existence and action in the context of the space-time scale suggested by scientific

cosmology and evolution. It recognizes that "real value and enjoyment" existed in the universe before higher forms of life but believes that the level and importance of enjoyment increased with the development of life forms with greater capacity for enjoyment (146). Though, process theology considers human beings to have value and worth that is probably unequalled by other species on this planet, it nevertheless recognizes the intrinsic worth of other species and believes their free development should be supported even if it involves some cost to the human species (148). Process theology seeks "a form of human-historical progress that simultaneously allows for the meeting of real human needs and for the renewed development of a rich complex biosphere" (149). It believes that science "guided by imaginative vision" can find ways to sustain a large but limited human population in "new and finer forms of enjoyment that are compatible with sharing the earth with many other species" (149). Process theology calls for an ecological sensibility which recognizes that "[e]very occurence grows out of its whole environment and becomes part of the environment out of which all future events come into being" (154).

As Otto recognized that the numinous could not be thought about conceptually or expressed in words, process theology recognizes that prereflective experience means that we apprehend more than can be expressed in language (36). When we hear the verbal expression of "a universally experienced fact," we respond with belief because we had already apprehended that fact at a

preconscious level. "The expression in verbal form simply helps us raise this apprehension to the clarity of consciousness, and hence to make it possible for this apprehended element to become more important in our lives" (37). However, language cannot perfectly reproduce the preconscious experience because "[w]ords and phrases do not have a one-to-one correlation with aspects of prereflective experience." Language inevitably introduces a note of interpretation which is "shaped by the history of the language, including the speculative thought, that belongs to that history" (38).

One of the ways language interprets experience is playfully. Only the intensity of joy equals the intensity of terror for the religious spirit. Augustine expressed the ground of joy in his conviction of the goodness of the world. Looking about him, he exclaimed, "Thanks be to you, O Lord, for all that we see!" Rejecting his earlier Manicheanism, Augustine said of all that he saw--heaven, earth, water, animals, man--"Taken singly, each thing is good; but collectively they are very good" (Confessions 343-345). One expression of such joy in the creation is the will to play. Plato, in fact, said that life should be lived as play consecrated to the gods. He asserted that "'man is made God's plaything, and that is the best part of him,'" and that therefore "'every man and woman should live life accordingly, and play the noblest games . . .'" (qtd. in Huizinga 19). Although play can be used as a diversion,[5] distracting one from the problems of authentic being, play can also be a way of *being*

intensely, a celebration of mystery, an act of worship, in itself. J. Huizinga in *Homo Ludens*: A Study of the Play-Element in Culture points out the primacy and inclusiveness of play: " . . . seriousness seeks to exclude play, whereas play can very well include seriousness" (45). Huizinga says that abstractions like justice, beauty, truth, etc. can be denied but that play cannot be denied. By acknowledging play, we also acknowledge mind--"for whatever else play is, it is not matter." Huizinga describes play as an affirmation of the nonlogical aspect of the cosmos:

> Play only becomes possible, thinkable and understandable when an influx of mind breaks down the absolute determinism of the cosmos. The very existence of play continually confirms the supra-logical nature of the human situation. Animals play, so they must be more than merely mechanical things. We play and know that we play, so we must be more than merely rational beings, for play is irrational." (Huizinga 3-4)

Language is one of the most common vehicles for play: "Behind every abstract expression there lies the boldest of metaphors, and every metaphor is a play upon words" (4). Huizinga says that naming things raises them "to the domain of the spirit" and that "[i]n the making of speech and language, the spirit is continually 'sparking' between mind and matter . . . playing with this wonderful nominative faculty." Playfulness in language gives expression to life and creates "a second, poetic world alongside the world of nature" (4).

Otto and Eliade describe feelings and experiences shared by religious people without regard to allegiance to specific doctrine or myth. Heidegger and Buber describe ways of being in time which emphasize the actual process of earthly becoming rather than prescribing mythic belief or codes. Heidegger analyzes the nature of being and describes as the peculiar characteristic of Dasein the ability to recognize and respond to the hail of Being. Eliade describes "an unquenchable ontological thirst," a craving for contact with the sacred that causes human beings to create in the profane world structures that have the cosmogony as their paradigmatic model. Otto names that which is wholly other, inspiring both dread and fascination, the *mysterium tremendum*. Buber says that in every *you* we address the eternal *You*, and that only by speaking *You* do we each become an *I*. Process theology says that human beings share a religious drive to correspond with the "really real" and to concentrate on those aspects of our existence which we perceive as connecting us with the depths of reality.

Each of these approaches to the mystery of Being emphasizes the use of language. Otto says that the mind recognizes the numinous for which language can offer only "obscure and inadequate" symbols because language has no term that can isolate and gather in a single word the total impression of the numinous. Heidegger says that Dasein can only have a world if it has language as a way of being open to Being and naming the things of this world in which Being resides. For Heidegger, poetry brings Dasein into

dwelling on the Earth. For Buber, self is created only through relationship, and relationship comes through language. Process theology recognizes that language serves to raise to clarity of consciousness apprehensions that have occurred preverbally but that language itself cannot perfectly reproduce the preconscious experience. Thus, the "something which stands beyond, behind, and within" forever escapes our conscious minds but remains hauntingly present to our nonverbal awareness. Huizinga describes the playfulness of language which celebrates the world by giving experession to it.

Despite its being an era of "deconversion," Vincent Buckley finds in the twentieth century an "extraordinary persistence" of the conception of poetry as a sacred or religious act in which poems exist as "sacred spaces" (Poetry and the Sacred 9). Buckley defines the religious interest or impulse as--

> . . . the impulse to establish the sense of man's life and his human relationships as being connected with, or, better, bonded with forces in the universe, which have their correlations in his own psychic life and so in at least some of his chief relationships, but which cannot be acounted for *in terms* of his psychic life, are in some sense superior to him, in some sense govern him, are manifest to him in terms of power and presence, and in some sense require of him adoration, worship, and celebration.

Though the religious impulse does incite to "attitudes of personal submission and responsibility," Buckley finds that religious poetry

"may or may not involve the further concepts of a communal fall, personal sin, personal or communal salvation, and an eternal life . . . " and, therefore, "may or may not incite to attitudes of personal *devotion* of the sort which lie behind or with the 'religious' poetry characteristic of centuries up to and including the eighteenth but which have seldom been resorted to with any poetic force since the Romantic movement" (11). Instead, religious forces in this century's poetry have "a present relevance to questions of personal identity, meaningful action, and the inner structures of feeling," but do not necessarily contain any traditional dogma or symbols. Buckley believes that "the works of many poets particularly since the height of the Romantic movement not only allow for but positively invite or demand analysis in terms which point to their religious quality but avert theological or doctrinal treatment" (16).

Poetry has an inherently sacralizing quality because it tends to heighten "imagined or observed particulars to the condition where they have a force as symbols," and this "sacralizing act" operates "to set aside certain experiences or places or people or memories as representatively revealing ones--in however attenuated a form, sacred ones" (20-21). Buckley describes religious poetry as "observing the religious world . . . in its secular seeming" (52). The divine speaks through the natural world. Writing specifically of Auden's "In Praise of Limestone," Buckley says that "the loves of 'the natural man' are inescapably the matrix for a sense of 'the blessed,' it is through 'the murmur / Of underground streams' and the

'limestone landscape' that God draws the soul and becomes established there" (52-53). Similarly, Buckley finds Whitman's poetry to be religious because Whitman does not just catalogue but conveys "things in a continuum of the created" and responds to "the sliding shine of 'the other' on things." He says that "Whitman with his famous lack of discrimination but his innocent sense of the world as present and demanding sacralizes everything" (54). Buckley finds that throughout English poetry, religious imaginative life has been expressed in forms which exhibit a co-existence of sacred and profane. For example, he considers both Wyatt and Spenser most religious when they are least concerned with being devout (30).

Since Wordsworth, religious issues, according to Buckley have for most poets "been raised outside the terms of Christianity entirely": "The modern non-affiliated religious poets who derive ultimately from Wordsworth do not believe in any wholes [complexes of meaning in nature and history like those of Christian doctrine] except that of unending process, and so do not believe in any interpretive frame at all" (65). Religious feeling survives in the twentieth century, but it is often attached to nonreligious objects (57). For the modern religious poet, "hierophanies may provide an opening toward the 'transcendent', but they do not indicate a God who is to be worshipped" (65). And, instead of looking back to a Golden age, romantic and post-romantic poets (like Whitman, Hopkins, Roethke, Lawrence) seek "the golden depth of the ordinary" (63). What Buber refers to as an I-Thou relationship and what

Heidegger calls responding to the hail of Being, Buckley describes as "selving" self by awareness of other selves, feeling in the nervous system the stress regarded as being from God and gathering the nervous system "to respond by naming God" (51).

In Irrational Man, William Barrett says that "[p]oets are witnesses to Being before the philosophers are able to bring it into thought" (119). Nathan A. Scott, Jr., in The Poetics of Belief recognizes that much of what Heidegger articulated philosophically can be found as presupposition or exposition in the writings of Coleridge, Arnold, Pater, Santayana, and Wallace Stevens. Similarly, a number of the issues raised by Otto, Eliade, Heidegger, Buber, and process theology appear in the writings of Wilbur and Eiseley--not necessarily because of direct influence but because they share an evolving zeitgiest. Both Wilbur and Eiseley convey a sense of pervasive, alluring mystery behind existence--what Otto called the "ineffable something that holds the mind," something which is intensely present but which eludes apprehension. For Eiseley, mystery is "that vast thing sleeping in the swamps of time," and for Wilbur, it is "the buried strangeness that nourishes the known." They participate in what Whitehead describes as a hopeless but life-affirming quest for the thing that persists through the passing flux, that which is "really real." Both Wilbur and Eiseley express wonder and amazement before the natural world, and both believe that nature is the route to supernature, that the invisible is seen in the visible. Like the process theologians, both Wilbur and Eiseley

acknowledge the vast space-time scale of scientific cosmology and species evolution. Both writers experience mystical awe as well as dread before the otherness of the universe; they experience the numinous as Otto describes it, both terribly daunting and immensely attractive.

The creation of art mimics what Eliade calls the cosmogonic paradigm. Art and poetry are also able to create what Marcel terms "*a region of fructifying obscurity* transcending the closed systems in which thought imprisons us, where beings may communicate" (Creative Fidelity 35; emphasis added). Both Wilbur and Eiseley perceive a kind of knowing which cannot be expressed in language directly but which can, through symbol and metaphor, be hinted at and suggested. For both Wilbur and Eiseley, art is an avenue to Being that can, as Heidegger suggests, awaken us to the sacred and teach us to dwell on the earth. Wilbur lives in an incarnate world to which he owes the poetic duty of being a giver of due regard, of recognizing the hail of Being. Eiseley writes of the lone wanderer thrown into existence, facing the anxiety and the challenge of making the choices for or against an authentic existence while burdened by the ever-present awareness of awaiting death. Like Buber, Wilbur recognizes the importance of relationship to self-making. He sees the self made through relationship and known through knowing the world. Both Wilbur and Eiseley write of accepting the risk of suffering that is part of the adventure of becoming. They recognize

what Eliade called the desacralization of the cosmos and the need for us to reawaken to a reverence for all of life.

According to Falck, "the play of our imagination makes possible the disclosure of reality or truth" and is in fact "the only opening on to reality that we can hope to have" (138). Play is one of the aspects of religion which appears constantly in Wilbur and modified as allegory, in Eiseley. Play in its purest forms worships the creation, expressing absolute delight in self and world and concocting situations in which the two interact with intense exuberance. Wilbur plays with words in puns, paradoxes, riddles, and metaphors--sometimes committing egregious stunts as in the lines from "A Problem from Milton": "Poor Adam, *deviled* by your energy, / What power *egged* you on to feed your brains?" (Poems 311; emphasis added). Often his poems (e.g., "Love Calls Us to the Things of This World," "The Catch," "A Baroque Wall-Fountain in the Villa Sciarra," "The Children of Darkness," "Running," etc.) express the joy of being in the world, seeing it and talking about it playfully. Eiseley most often remembers episodes of childhood play and transforms them into allegory. He traces the origins of his adult psyche to the play of the child who fathered the man--pretending to be a caveman in the rain sewers of Lincloln, Nebraska, riding on a tea wagon with golden wheels, finding the sea in a shell. His child's game of rolling dice in an abandoned house became a metaphor for the human condition--an isolated, frightened individual gambling against the stacked-house

of the universe. For Eiseley, play also takes the form of *the play*--a religious mystery play in which his persona takes the lead.

Eiseley: The Mystery of "that vast thing sleeping in the swamps of time"

Primitive and classical myths had the virtue of being complete in themselves; they explained both the *how* and the *why* of creation. With the tremendous advances in knowledge which have occurred since the scientific revolution, science has assumed the right and the responsibility of explaining to us how the world works. Science feeds our intellect but also tantalizes us with the desire for larger, more complete, more complex understandings. Often the discoveries of science lead to yet more unknowns. Religious hunger begins with the question that science cannot answer, the *why* of creation. Eliade wrote that "[f]or the religious man, the appearance of life is the central mystery of the world" (Eliade 147). Heidegger considered creation to be the ultimate metaphysical puzzle, producing "the question of questions": "Why is there any Being at all--why not far rather Nothing?" (Existence and Being 380). Kierkegaard realized that eventually "'the point becomes to understand more and more that there is something which cannot be understood'" (qtd. in FOT 177).

Surveying the course of his life in his autobiography All the Strange Hours, Eiseley wrote:

> Ironically, I who profess no religion find the whole of my life a religious pilgrimage. The origins of this hunger are as mysterious as the reasons why we, who are last year's dust and rain, have risen from the dust to look about with the devised crystal of a raindrop. (ASH 141)

The scientist found himself on a religious pilgrimage because, though he might speculate on how dust and rain over eons transformed themselves into parrot and squid and human, he could not understand what impulse should prompt these seemingly unnecessary metamorphoses. Especially he could not understand why a creature composed of inert elements should evolve to ask "Why?" In The Night Country he writes: "There is no life in the carbon in my body. . . . no life in the iron . . . no life in the phosphorus, the nitrogen does not contain me, the water that soaks my tissues is not I." The man is made of dead constituents: "Carbon does not speak, calcium does not remember, iron does not weep" (NC 51). Though the chemical ingredients are known, the secret of life--"that unkown organization of an unstable chemistry which makes up the life processes"--is "as inscrutably remote as ever" (IJ 44-45).

> Nothing to explain the necessity of life, nothing to explain the hunger of the elements to become life, nothing to explain why the stolid realm of rock and soil and mineral should diversify itself into beauty, terror, and uncertainty. To bring organic novelty into existence, to create pain, injustice, joy, demands

> more than we can discern in the nature that we analyze so completely. (ASH 242)

Thus Eiseley confronted the fundamental conundrum, and a lifetime of close observation led him to conclude that "in the world there is nothing to explain the world."

Although Eiseley believed that matter and energy and the struggle for existence molded the shape of life, behind it all he sensed something elusive.[6] The mysterious principle of "organization" seemed "not strictly the product of life, nor of selection." This principle of organization "[l]ike some dark and passing shadow within matter . . . cups out the eyes' small windows or spaces the notes of a meadow lark's song in the interior of a mottled egg" (IJ 26). Eiseley suspected that this patterning principle "was there before the living in the deeps of water" (26). Awed by the totally unnecessary beauty and symmetry of a snow flake, Eiseley speculated that the explanation came from a world beyond and behind nature:

> No utilitarian philosophy explains a snow crystal, no doctrine of use or disuse. Water has merely leapt out of vapor and thin nothingness in the night sky to array itself in form. There is no logical reason for the existence of a snowflake any more than there is for evolution. It is an apparition from that mysterious shadow world beyond nature, that final world which contains--if anything contains--the explanation of men and catfish and green leaves. (IJ 27)

A scientist, an avowed evolutionist, Eiseley found in the world more mysteries than answers. He sensed behind the world something of a wholly different order of reality manifesting itself in the things of an ordinary day. For Eiseley, all of nature became what Eliade called a "cosmic sacrality."

Ironically, Eiseley found a strange comfort in the impenetrability of creation; its opacity allowed him to believe that *something* did exist beyond his capacity to know. In his poem "That Vast Thing Sleeping" Eiseley recounts how paleontologists and anthropologists "wring meaning" from the past using "paleomagnetism in / shards of ceramic vessels, thermoluminescence, / radioactive counters" ticking off "dissipating isotopes" (IA 65). He says study of the past teaches us that in some future we too "will be raveled into amino acid chains / recoverable from rocks, a few words etched on stone / pounded by breakers in oblivion." The evidence of the past convinces those who study it that "time's stairway ends upon a rail-less balcony / for all of life." Suprisingly, the poet finds both meaning and solace in this bleak news, even though he suspects that the comfort is simply "the life force in you / luring you on" (66). His discovery teaches him what he cannot know:

> Because I know all this and if I know,
> something within the universe knows more.
> I am a pale reflection of that mind,
> shaped by its mere potential when it wallowed in
> algae and ooze and was, no doubt of it,
> the Gunflint flora that we study now. (IA 66)

Eiseley calls himself a mere reflection of that something within the universe that knows the past and dreams the future; yet, as a reflection he believes that his own thoughts "must run / in similar directions" with the thoughts of "that vast thing sleeping in the swamps of time" (66). He and Wilbur share an assurance that here in this world is the place "[w]here something may be understood" (Poems 20).

For Eiseley, nature is the only accessible exposition of the mystery of being. Mystically, nature is the multiform manifestations of that vast thing sleeping and dreaming in the swamps of time. As an intellectual concept, nature represents man's attempt "to define and delimit his world, whether seen or unseen" (ST 225), and nature "implies all, absolutely all, that man knows or can know" (ST 226). Recognizing that he springs from nature and not nature from him, man also knows that nature existed before and will continue after him. Nature remains a giant otherness that contains both man and all the secrets he instinctively feels are denied to him. Therefore, both theologian and scientist, "each in his way" according to Eiseley, pursue the quest for some transcendent order behind nature (ST 217). Eiseley believed that "[b]ehind all religions lurks the concept of nature," and "[b]ehind nature is hidden the chaos as well as the regularities of the world. And behind all that is evident to our senses is veiled the insubstantial deity that only man, of all earth's creatures, has had the power to perceive or to project into nature"

(ST 225). As best we know, only man has concerned himself with nature as an abstraction and looked ceaselessly "outside of nature toward something invisible to any eye but his own and indeed not surely to be glimpsed by him" (ST 226).

Eiseley writes in his poem "Five Men from the Great Sciences" of the need to escape "a perpetually narrowing corner" and look "for something beyond human cognizance, instruments and guidance / to a place outside" (IA 71). The "something beyond" has not been found in the laboratory or in light years or in the spectroscope, nor has it been found "in death / or in the life about us." Nevertheless, the poet believes "it exists and lies truly outside or beyond nature, / conceived / in some intangible way by her." The mystery "will never be found / save in single heads / and by them unrecognized." Like small garnets locked in impenetrable stone, Eiseley finds--

> something as unseen and precious
> though finite
> locked in my mind
> but outside,
> do you understand,
> outside this inside of nature
> we are forced to inhabit. (IA 72)

A momentary revelation is possible, "[b]ut the getting through is individual." Eiseley believes that "[n]othing lies outside of nature unless she herself will it, but she does"; he feels himself allowed "outside for just a moment":

beyond time,
beyond hearing,
beyond sight,
beyond thought

There, in the place where he can, like a red garnet in plain rock, gleam briefly but never go back, he discovers

It is
not in the stars the planets nor the leaf-fall
but it is in them
and by them, and rarely, as now,
that the door is opened. (IA 72)

The epigraph from Heraclitus Eiseley chose for The Unexpected Universe-- "If you do not expect it, you will not find the unexpected, for it is hard to find and difficult"--speaks the necessity of being open to wonder in order to be able to see it.

Eiseley believed that the mystery without could only be understood by the mystery within: "Each man deciphers from the ancient alphabet of nature only those secrets that his own deeps possess the power to endow with meaning" (UU 146). Exploring the central mystery--the origin of being--led Eiseley to write The Immense Journey. He said that he made his reconstruction of human evolution of those four elements recognized by the ancient Greeks: "mud and the fire within it we call life, vast waters, and something--space, air, the intangible substance of hope which at the last proves unanalyzable by science, yet out of which the human dream is made"

(13). Eiseley chose as his epigraph for The Immense Journey William Temple's assertion that "'[u]nless all existence is a medium of revelation, no particular revelation is possible.'" Because he finds (like Heidegger) "nothing very normal in nature," all the elements and their multiform mixings are, for Eiseley, possible sources of revelation.

Eiseley "sought to explore, to understand, and to enjoy the miracles of this world, both in and out of science" and that he tried to write of "such miracles as can be evoked from common earth" (IJ 12). He called the moment of his initial awareness of the otherness of nature his "first miracle." When he was a child visiting relatives, Eiseley's aunt and uncle had placed to his ear a large, beautiful, iridescent shell and told the boy to listen carefully so that he could hear the sound of the sea inside the shell. Whether what he heard was "the whispered sibilance, the sigh of waves upon the beach, the little murmurs of moving water, the confused mewing of gulls in the sun-bright air" or just the vastly magnified whispers of his own blood and the house around him, Eiseley says either was "marvel enough" (ST 217). The experience caused him to fall suddenly out of the nature he had inhabited obliviously and to turn to survey her with surprise and wonder. For the child who had never seen the sea, the miracle was that "a shell shaped in the seas' depths, should, without intent, so concentrate the essence of the world as to bring its absent images before me" (ST 217).

With this falling out of nature into awareness, Eiseley became ensorcelled; he entered into the confused and endless exploration, a transcendental search for order that Emerson once indicated ensnares all those who become consciously aware of nature. Emerson described the entrance of nature into the human mind as the birth of man and described man as "'nature's finer success in self-explication'" (qtd. in ST 219). Others have perceived the sense of human separation from nature and the ensuing longing to recross the dividing gulf in the same terms Eiseley used to describe the awakening of his own childish awareness--as a fall. Eiseley finds implicit in Darwin's title for his study of human evolution, The Descent of Man, a substantial if unconscious orthodoxy: " . . . man *did* fall; even to an unbeliever and an evolutionist like Darwin. Man fell from the grace of instinct into a confused and troubled cultural realm beyond nature, much as in the old theology man fell from a state of innocence into carnal knowledge" (UU 136). Eiseley calls Santayana's statement that "'[t]he universe is the true Adam, the creation the true fall'" a profound and succinct analogy. He says the philosopher saw "that in the instant when the universe was brought out of the void of non-being its particles, achieving such powers as are present in man, would yearn for understanding of their destiny" (ST 218). If the creation was indeed "the true fall," man fell even further--out of creation into *awareness* of creation. As "higher" consciousness separated human from animal awareness and behavior, Eiseley says that man fell "out of the secure world of instinct into a place of

wonder" (ST 221). The ensuing combination of fascination and terror has caused human beings to search for place, power, and meaning amid so much otherness, for a sacred space that is real, effective, and non-illusory. Eiseley writes, "In the old house of nature there are monsters in every cupboard. That is why, as nature's children, we are inveterate romantics and go visiting" (ST 221).

Eiseley says that because man has fallen out of nature and has become "[b]ereft of instinct, he must search constantly for meanings" (UU 144). Man looks for those meanings in nature because he senses that "[s]omething, some law of a greater civilization, sustains nature from moment to moment within and above the void of nonbeing" (ST 240). In his essay "Walden: Thoreau's Unfinished Business," Eiseley writes of how Thoreau described each Indian arrowhead he found as a "'mindprint,'" a "'fossil thought'" that reminded him of the mind that shaped it, the mind whose trail he pursued (ST 239). As humans leave the artifacts (arrowheads, pottery) of their civilizations, nature--which Thoreau called "'another civilization'"--leaves daily its prints and artifacts--"the mysterious hieroglyphs left by a deermouse, or the preternatural winter concealment of a moth's cocoon in which leaves are made to cooperate" (ST 240). Eiseley says that "[Thoreau] saw in the dancing of a fox on snow-whipped Walden ice 'the fluctuations of some mind'" (ST 240).

Eiseley himself found artifacts left lying about by that other civilization, nature. If we would learn to look, he said that we could see in "a spider's wheel a universe, or [in] a swarm of midges a

galaxy, or [in] a canyon a backward glance into time" (UU 106). Puzzling over a Conus shell etched with strange markings like "the letters of a golden alphabet / untraced, unreadable," Eiseley speculates that--

> the golden hieroglyphs encircling,
> line above line, the contours of the shell
> all seem to speak what is unsaid, all seem to be
> thoughts:
> something that nature would not record by chance
> under the kelp and tumult of the sea. (IA 45)

Though the poet is sure that the golden alphabet will not be read by "any man of this barbaric age," he feels convinced that "this symmetry is not the play of chance; / something beyond the stars was writing here / a book that molecules have set in place" (47). His conviction is bolstered by the evidence that "even we / bring out of darkness thoughts and rhythms / that ring the mind with music." On cave walls and in ancient Greece, form anticipated substance. The poet reads this message in the cryptic shell:

> Beneath the golden shell with written characters
> admit that all is dark
> but, in the mind as well,
> is a great void from whence form emanates.
> Admit that, too.
> This is the message on the golden shell.
> (IA 47)

Form materializes out of the fathomless darkness of the human mind, and form arises out of the greater void of nature. The parallel suggests a greater mind behind the greater void. To Eiseley and Thoreau all of nature seems a mindprint, and it is that mind behind the veil of nature, the numinous, the wholy other, the maker and lawgiver of some greater civilization, that both naturalists seek. Eiseley writes that "[t]he whole story of humanity is basically that of a journey toward the Emerald City, and of an effort to learn the nature of Oz, who, perhaps wisely, keeps himself concealed" (UU 124).

For Eiseley, science mixes the rational with the suprarational; in fact, he sees faith and a sense of the numinous underlying science. In his essay "Science and the Sense of the Holy" included in The Star Thrower, Eiseley quotes Einstein's assertion that "'a conviction akin to religious feeling of the rationality or intelligibility of the world lies behind all scientific work of a high order'" (qtd. ST 191). As an example, Eiseley cites the religious feeling he perceives in the work of Charles Darwin. In a time when animals were generally perceived as automatons or creatures destined for human exploitation, Darwin speculated that humans and animals might actually be netted together in one interdependent web: "'If we choose to let conjecture run wild, then animals, our fellow brethren in pain, disease , suffering and famine--our slaves in the most laborious works, our companions in our amusements--they may partake of our origin in one common ancestor--we may be all netted together'" (ST 187). In

spite of Darwin's agnosticism and his being "'in thick mud'" in regard to metaphysics, Eiseley finds in Darwin's statement "an intuitive sensitivity to the life of other creatures" and "that feeling of awe, of dread of the holy playing upon nature, which characterizes the work of a number of our naturalists and physicists down even to the present day" (ST 187). Eiseley describes Darwin's feeling of creation being netted together as a "mystic sense" that we are "one single diffuse animal, subject to joy and suffering beyond what we endure as individuals" (ST 187).

Pointing out that "some of the world's scientists and artists have been deeply affected by the great mystery," the awe before the created universe which Otto called the *mysterium tremendum*, Eiseley describes the primordial beginnings of such feelings: "Ever since man first painted animals in the dark of caves he has been responding to the holy, to the numinous, to the mystery of being and becoming, to what Goethe very aptly called 'the weird portentous'" (189). Eiseley describes this as a feeling that something inexpressible is lying behind nature and says that this is felt most acutely in human relations to animals:

> . . . a sanctified, reverent experience . . . extends from the beautiful rock paintings of South Africa to the men of the Labradorean forests or the Plains Indian seeking by starvation and isolation to bring the sacred spirits to his assistance. All this is part of the human inheritance, the wonder of the world, and nowhere does that wonder press closer to us than in the guise of animals which, whether supernaturally as in the caves of our origins or, as in Darwin's sudden illumination, perceived

> to be, at heart, one form, one awe-inspiring mystery, seemingly diverse and apart but derived from the same genetic source" (ST 189).

W. H. Auden, who described Eiseley as "a solitary who feels more easily at home with animals than with his fellow human beings" (Introduction 19), observed that Eiseley's own numinous encounters are almost always with "nonhuman objects--a spider, the eye of a dead octopus, his own shepherd dog, a starving jackrabbit, a young fox" (20). In his writing at least, for Eiseley it was easiest to speak I-Thou in relationships with animals

Eiseley the anthropologist identified himself as a member of an old and suspect cult, the "alchemists of the heart," magicians who surround themselves with "worm-eaten books . . . shark's teeth and stuffed mermaids" (IA 39). In this century, these alchemists "wear a disguise best fitted for the times" because "the peaked cap with the stars [is] no longer suitable" (IA 41). Some, like Eiseley, "practice science, like me are not scientists."

> we sit
> before a microscope, or watch the Pleiades, but we
> belong to an old craft, wizards who loved
> the living world, loved mystery, kept talking birds
> close to their shoulders, never solved a thing
> but lived lives close to where solutions were
> and did not want them,
> preferred mystery. (IA 41)

As an alchemist, the poet says he knows "only the mystery of objects" and saves "what I can keep from being ground to dust" (42). Perhaps because they "see in the dark, wait for the ice," the alchemists of the heart "suffer the ostracism of the seeming learned" and "are not entirely welcome among men" (42). Though it would remain for him an impenetrable mystery and though being came with terrible dread, Eiseley found the "life within us, a magnificent, irrecoverable good," and his love of its endless manifestations was a kind of "submerged worship" (ASH 239).

Alluring, Terrifying Otherness: "Something that did not love the sun"

Intense awareness of life can bring with it not only holy awe and reverence but also a shuddering dread of that which is invincibly other. The feeling of uncanniness can come, as Otto says, with whatever looms up in the world of the ordinary "as something terrifying and baffling to the intellect" (64). Any event in the human, animal, or vegetable world which sets the perceiver "astare in wonder and astonishment" may arouse daemonic dread and numinous feeling. Eiseley remembers such an experience when as a child he uncovered an old well. A shaft of sunlight revealed "a spidery thing of hair and many legs" crawling across a rusty pipe twenty feet above the water level. The slowly moving, sure-footed creature which loved the dark was as "secretive as the very underground" whose mystery had lured the boy to uncover the well.

Eiseley says that he must have realized then for the first time "the frightening diversity of the living": " . . . something that did not love the sun was down there, something that could walk through total darkness upon slender footholds over evil waters, something that had come down there by preference from above" (IJ 38).

On occasion, Eiseley witnessed a spectacle so appalling that he even came to doubt "the naturalness of nature" (ASH 237). He experienced one of those occasions of doubt as he watched "[b]eauty and evil . . . course together over the autumn grass" with the invasion of giant, tiger-faced Sphex wasps (ASH 238). Eiseley watched as indefatigable female wasps built burrow after burrow in the soil, depositing in each a carefully wrapped pupa and a paralyzed but living cicada to feed the insect that would emerge from its pupal casing. Remembering the details of Sphex life cycle as described by nineteenth-century entomologist Henri Fabre, Eiseley was both awed and appalled. Not only are the wasps guided on return flights to their burrows by complex, unerring, and unexplained navigational guidance systems, but the wasps possess a "deadly perfection" of surgical precision that allows them to incise nerve centers in their prey, paralyzing but not killing the cicada. The Sphex larva, in turn, possess "an instinctive knowledge of how to eat in order to prolong the life of the paralyzed body which they devour" (ASH 241). Even more appalling is the fact that the cicada victims, according to entomologist Fabre, seem to have foreknowledge of their helplessness, and the agile Sphex wasps take "absolute confident

advantage" of the cicada's fear. Each new female wasp who emerges in the spring, perhaps over the dead body of her own unrecognized mother, carries "not alone the surgical instrument, but the map of operations yet to be performed on an insect she has never seen" (ASH 243). Herself a nectar feeder, the adult wasp will use her instrument and skill to feed her own carnivorous grubs--the last of whom may crawl out of its underground nursery over her dead body. In The Unexpected Universe Eiseley quotes Darwin's exclamation on the savagery of the life force that drives evolution: "'What a book . . . a devil's chaplain might write on the clumsy, wasteful blundering and horrible cruel works of Nature'" (qtd. in UU 135).

Musing over the Sphex wasp burrows as the year wound toward winter and his own life moved toward its close, Eiseley puzzled over the beautiful and terrifying phenomenon:

> Here beneath the leaves on the autumn grass slept nature, or a part of nature, so beautifully, so exquisitely contrived that it was hard to imagine error, hard to conceive of all the pieces of that intricate puzzle being put together from the blind play of natural selection alone. Looked at from one point of view, nature had created monstrous evil, the tormenting of helpless, paralyzed flesh. Looked at in another way, the eternal storm maintained its balance. (ASH 244)

Eiseley came to acknowledge being "simply baffled": "I know these creatures have been shaped in the cellars of time. It is the method that troubles me" (ASH 246). Earlier in his life, during his graduate

student days at the University of Pennsylvania, Eiseley had visited the Philadelphia Zoo with his mentor and friend, anthropologist Frank Speck. Watching a beautifully patterned wood duck paddling in a pond, Speck asked Eiseley if he believed unaided natural selection had produced the pattern. Eiseley's response was unsure and tentative. Although he had no doubt about both his and the bird's evolutionary heritages, he was troubled by nature's methods of achieving its outcomes. He felt nature too vast for human scope and ingenuity and could not "believe in simplicity." He found the universe "too frighteningly queer to be understood by minds like ours" (ASH 90).

Referring to the thirty-ninth chapter of Job, Otto in The Idea of the Holy points out that when God challenges Job with an ennumeration of his feats of creation--including eagle, ostrich, wild ass, unicorn, etc.--the emphasis is not on "*teleological* wisdom that 'prepares all cunningly and well'" but on the "*strangeness* and *marvel*" of the creatures which express the wondrousness of their creator. Otto says of these creatures that "their mysterious instincts and their inexplicable behaviour, [their] very negation of purpose becomes a thing of baffling significance . . ." (79).

> Assuredly these beasts would be the most unfortunate examples that one could hit upon if searching for evidences of the purposefulness of the divine 'wisdom'. But they no less than all the previous examples and the whole context, tenor, and sense of the entire passage [of Job], do express in masterly fashion the downright stupendousness, the wellnigh daemonic and wholly incomprehensible character of the eternal creative

> power; how incalculable and 'wholly other', it mocks at all conceiving but can yet stir the mind to its depths, fascinate and overbrim the heart. (Otto 80)

In the virgin forest of North America, Alexis de Tocqueville wrote of experiencing a manifestation of terrifying otherness; de Tocqueville describes "'a stillness so complete that the soul feels penetrated by a sort of religious terror'" (qtd. in IP 13).

In his poem "Wounded Knee: In Memoriam, 1890," Eiseley looks over a high mountain pass through which the cold wind blows down from Canadian prairies and "here in the high grey twilight I consider / what tiny particles are men intruding / sentience and will into the streaming curtain of the night" (IA 55). He senses how unique is this living planet in a vast, *unmindful* universe. He calls an Explorer space probe sent the two hundred million miles from Earth to Mars "the eye / detached from the eye" (AKA 58). The Explorer's mechanical/electronic eye discovers absolute dead otherness:

> O Martian day lit by the black light of no eyes,
> blind craters, blinkless sockets gazing
> where no rain falls, here
> nothing has died, been born, since yesterday's
> four billion years. (AKA 58)

The message for the eyes that detached the exploring eye is that vast space holds invincible otherness not susceptible to human will or making.

The universe
is not for man, it is
itself, out there the star stuff is wrenched free
it does not seed
reproduce, devour, it is and is only.

Absolute blankness can inspire even more dread than the dark things that hide in wells

Not only is the vast universe full of mystifying, terrifying otherness, but even the human body itself can seem part of that other. Eiseley finds in a passage from Thoreau's The Maine Woods a "penetrating expression of the spirit's horror of the substance it lies trapped within" (NC 146). For Thoreau, who "revered and loved true science," a mountain journey of observation and measurement becomes a "spiritual ascent" in which "pure observation gives way to awe, the obscure sense of the holy" (NC 144). Eiseley says that the effect of the passage comes from "a style so appropriate to the occasion that it evokes the shape of earth before man's hand had fallen upon it" and from "a terrible and original question posed on the mountain's summit" (NC 144). In the passage, Thoreau describes a place of mists like a "'cloud factory,'" of vast, titanic nature in which he feels the presence of a force "'not bound to be kind to man.'" Alone with that vast, inhuman presence, Thoreau feels some vital essence escaping "'through the loose grating of his ribs'" and feels pilfered "'of some of his divine faculty'" (NC 144-145). Eiseley describes Thoreau's sense of himself as a spirit and his astonishment

and terror at the recognition of the power of the hard substance of matter which he perceives as so alien to the self he understands as spirit: "'I stand in awe of my body, this matter to which I am bound has become so strange to me. I fear not spirits, ghosts, of which I am one--*that* my body might--but I fear bodies, I tremble to meet them'" (qtd. in NC 145). Thoreau then asks what Eiseley characterizes as "a terrible and original question": "'What is this Titan that has possession of me? Talk of mysteries!--think of our life in nature--daily to be shown matter, to come in contact with it--rocks, trees, wind on our cheeks! the solid earth, the actual world'" (qtd. in NC 145). Thoreau is overcome with the mysteries of self and world: "'*Who* are we? Where are we?'" (qtd. in NC 145). Eiseley finds tremendous power in Thoreau's retelling of his experience of the mountain's over-awing presence. He says that we have had the opportunity to move briefly in a titanic world and to have "hurled at stone titanic questions" because " . . . a slight, gray-eyed man walked up a small mountain which, by some indefinable magic, he transformed into a platform for something, as he put it 'not kind to man'" (NC 146).

Eiseley recounts his own tale of an encounter with terrifying yet alluring matter. For Eiseley, the extremity of nature is not a mountain's frightening mass and solidity or a distant, inert planet, but the sinister whispering, pull of moving underground water. For Eiseley, water is always as dangerous as it is mesmerizing, and it is out of water he creates the myth of the birth of his own imagination.

In one of his essays from The Night Country, water, subterranean water, is the alluring threat that rises in the darkness, "The Places Below," and calls those who hear its burbling to some unreachable depths from which there is no return. He warns those who cannot "bear the silence and the darkness," those who "dislike black night and yawning chasms," to seek the sunshine and avoid the darkness: "If you fear the sound of water hurrying through crevices toward unknown and mysterious destinations, do not consider it" (NC 15). But Eiseley knows that humankind will not follow his prescription but will "turn immediately to the dark . . . . . drawn to it by cords of fear and of longing." He knows that "[y]ou will imagine that you are tired of the sunlight . . . you will end by going down" (NC15).

In "The Places Below," Eiseley recounts episodes from his life all connected by the presence of water and death or the terrifying possiblitity of death. First, he describes an old farmhouse to which he has been a frequent visitor, drawn by the lure of what waits in the cellar. On the edge of a rolling plain, the "old warm farmhouse where people rock on the porch in the starry evenings" has no shadow on it, "[b]ut it has a cellar, and that cellar has a monster in it" (NC 16). The cellar "seems ordinary at first glance," but it has been cut out of rock leading to "some accidental tremendous fissure torn in the bowels of the earth . . . . This is the country of Charon and Cerberus; from this the pleasant fields draw sustenance"--just as Eiseley's imagination draws sustenance from the dark abysses of his own psyche (NC 17).

Deep in this nature-made cellar, below the one dug by men, amid towering rocks and the smell of sulphur, Eiseley finds the thing that draws him back, visit after visit: It is a "great pool of cold blue water" contained within the splendor of a "vast, blue chamber that glistens and invites . . . from below" (NC 17). He describes the chamber as a place never to be entered in the flesh, a place that seems to speak faintly of faces that will never be seen. "It invites . . . as arsenical springs invite the thirsty" (NC 17). Hearing tales of the fall and rise (sometimes a hundred feet in three hours) of the water that protects the "Blue Room" from would-be explorers, Eiseley feels "the creep of some uneasy power in the rocks" (NC 17). And he recognizes (and shares) the farmer's obsession with the Blue Room, this place forever unreachable. What Eiseley says of the farmer is true of himself: "A corner of his brain [is] eerie with stalactites and that wavering world of distance and promises" (NC 18). The watery Blue Room becomes an emblem of what cannot be known and cannot be reached but forever allures. It exists in the human imagination as much as in the bowels of the earth. What is outside mirrors what is inside:

> We will never see that chamber as it really is. There is nothing like it in the fields or in the sunlight. It is a part of the places below. And whether the places below lie in the dark of an old cellar or in the crypts and recesses of the mind, or whether they are a glimmering reflection of both together, the old farmer does not know any longer. (NC 18)

The old farmer's perplexity and enthrallment are Eiseley's own.

Having described his adult fascination with the Blue Room, Eiseley turns back to his childhood for an explanation of his obsession with the murmur of subterranean water. One of Eiseley's most vivid childhood memories centers around a personality and adventure that led him to make choices "far backward in the innocence of childhood" that would forever draw him to the Blue Room and the other "places below." Though a middle-aged man, he can remember every maze of the sewer labyrinths of Lincoln, the city in which he lived when he was ten: " . . . lying on my bed at midnight, waiting for sleep, I find myself retracing in memory each twist and turn of the storm drains underneath the sunlit streets that other men remember" (NC 19). His comrade, his "lord and master," in the boyhood adventures of living vividly and imaginatively as cavemen in the storm drains was "the Rat," a slightly built boy with the "terrible intensity of a coiled spring." Eiseley's life was marked forever after he accepted the Rat's invitation to join his gang of cavemen and enter the world beneath a world, down a drain pipe that emptied "twenty square miles of sky when the rains blew up" and was as "dark as a vanished geological era." Always in the background of their lives in the sewers was the threat that sudden heavy rains could fill the pipes with torrents of water that "thundered like Niagara," creating maelstroms and irresistible suctions that would sweep incautious wanderers to drowning in underground drains.

Eiseley's underworld adventures as a caveman with the Rat ended abruptly. He writes that "[i]t dawned a clear day on the morning the world ended" (NC 21). Eiseley and the Rat were crawling six hundred feet into a side tunnel already partially filled by sand and water when they heard "a very little sound . . . . a little murmuring in the water, a little whisper, a little complaint as though the water were growing restless and wanted to go somewhere" (NC 22). Believing this sound indicated an unforseen rain beginning to deluge the drain system, the boys struggled frantically to crawl toward a larger chamber that might lead to an exit. When, exhausted, they did mange to lift a manhole cover and escape, they discovered that there was no torrential storm, only a city worker testing a fire hydrant nearby. However, the boys with torn clothes, raw knees, and bruised hands were discovered by Eiseley's furious father, and they were forbidden to enter the sewer system again.

Despite parental admonitions, Eiseley says the original choice to follow the Rat and become a boy-caveman made him forever susceptible to the siren call of "water hurrying toward unknown and mysterious destinations": "The urge returns. The same voices speak to you" (NC 24). In "The Places Below" Eiseley recounts two more episodes in which he is drawn by water murmuring in subterranean darkness. While still a ten-year-old boy, he found an old brick drain high enough for standing upright; its entrance and the bricks inside were covered by green moss. He and the Rat traveled over "moss like velvet," through air that "kept blowing cool and clean." In the

chill air a hundred yards inside, they could hear again the vibration of falling water. Eiseley says at that moment, "I didn't want to see it, where that water was going, I mean, or why it was in this hill. I had had enough of the green door" (NC 25). Yet, he "would follow the Rat anywhere." His companion declared they would keep this place secret from the gang, keep its exploring just for themselves. Death intervened, however. A few weeks later the Rat was "dead of some casual childhood illness": "All that consuming energy and passionate intellectual hunger had come to nothing" (NC 25).

Though he would spend his adult life in high-powered academia, Eiseley writes that "I never met a mind like his again" (NC 25). He returned once to the "green door" but could not enter without his friend. Eiseley was left longing for a place he had lived in the imagination, a place twice vanished:

> If there is any truth to the story that at death men return to the period they have loved best in life, I know well where I will awake. It will be somewhere on the cold, bleak uplands of the ice-age world, by the fire in the cave, and the watching eyes without. It was the Rat who left me there. (NC 26)

What Eliade calls a "profound nostalgia" to inhabit a divine world of sacred, primordial, mythical time haunts Eiseley's writing. In particular, he longed ro recapture what he casts as the "paradisal situation" of humanity's beginnings. Eiseley's imagination had been captured in childhood; as an adult, he was left longing for a vanished ice age era which he and the Rat had temporarily revivified in their

youth. For him, the sound of moving, underground water aroused a plaintive longing for the lost times when ice ruled the planet, the world he and the Rat had recreated as cavemen in the sewers of Lincoln.

Finally, Eiseley describes in "The Places Below" another underground adventure which occurred many years later when he was "an archaeologist--not a fool." He says that "something drew me" into the Hall of Shadows, a cave he had "no business to be in." Uncertain of exactly how he got in or how he would get out, Eiseley lay on his back in an enormous rock chamber meant for a king's burial. He could move only by crawling because the forces that had opened the chamber were slowly closing it:

> . . . that great hall was hung with vast tapestries and heavy curtains over which my lantern played. And those tapestries were iridescent stone. The powers that had built that chamber in the depths of the mountain were closing it again. I had come as the curtains lingered above the floor. If I stayed they would descend. (NC 26).

There Eiseley discovered that he "loved the darkness . . . . feared it, yet returned to it. It was the mother out of which I came" (NC 27). He was one of those "in the world of light" who "desire the darkness." He recognized that "[t]he whole infinite ladder of life was filled with this backward yearning" (NC 26). From far off under the darkness of those stony curtains, Eiseley heard "a faint sound of water . . . menacing, and sweet"; the sound reminded him of the Rat standing,

listening at the green door to the falling water far off in a similar darkness. Eiseley waited again at a green door longing for someone like the Rat to help him but realizing that "[o]ne entered by oneself, or not at all" (NC 27). With "agonizing reluctance" Eiseley began to crawl back toward the daylight but not before recognizing that the "far-off murmur that might have come through remote distances of stone" actually whispered in his brain and not in the Hall of Shadows. The pull toward the darkness of the alluring unknown came from inside.

Eiseley possessed an awed sense of worlds existing within worlds--each as unaware of what it contained as it was of the larger context which contained it. One occasion when he himself became intensely conscious of the existence of parallel or concentric but uncomprehending universes occurred when he and "a poet friend" attended "a great opera performed in a tent under arc lights." The poet pointed out to Eiseley a giant Cecropia moth which had blundered in out of the night and was flying "from light to light over the posturings of the actors" (UU 175). Eiseley's friend observed what the moth did not know: "'He's passing through an alien universe brightly lit but invisible to him. He's in another play; he doesn't see us. He doesn't know'" (UU 175-176). Then the poet turned his observations from the obtuseness of the moth to their human situation: "'Maybe it's happening right now to us. Where are we? Whose is the *real* play?'" (UU 176).

Pursuing the question, "What is it we are part of that we do not see . . . ?," Eiseley compares our limited awareness to the clever but constrained vision of a spider. He muses that an orb spider, a world-maker among tall spears of buffalo grass, must recognize the expected intrusions into her web world--"the tug of the wind, the fall of a raindrop, the flutter of a trapped moth's wing"-- but he presumes that she must have no precedent for understanding the curious man's pencil point tweaking a strand of web and setting the woven gossamer vibrating: "Spider was circumscribed by spider ideas; its universe was a spider universe" (UU 50). Everything outside her web must seem--in the human terms with which we interpret a spider's world--"irrational, extraneous, at best, raw material for spider" (UU 50). Passing "like a vast impossible shadow," Eiseley realizes that "in the world of spider" he does not exist.

Like the orb spider, humankind too lives in a web; our vast world net spun of the twined silk of intellect and imagination extends "through the starry reaches of sidereal space, as well as backward into the dark realm of prehistory" (UU 53). Yet, like the orb spider, we live within the web we have spun and have no awareness of what may exist outside it, no sense of the vast fields of buffalo grass among whose few spears we have hung our own world web. In the very largest context, the very perception of "otherness" may be itself a manifestation of a limited vision.

In a smaller context, Eiseley considers, the otherness within, the world inside his own body, especially the white blood cells that are part of his "inner galaxy." The conscious " *I*" which to him seems the only sure reality has no significance to the rudimentary intelligence of the amoeboid phagocytes which live within his own blood vessels. To these white blood cells, the man who contains them must seem only "a kind of chemical web" which, like the spider's web, brings useful messages: " . . . a natural environment seemingly immortal if they could have thought about it, since generations of them had lived and perished, and would continue to so live and die, in that odd fabric which contained my intelligence" (UU 50). Eiseley considers that to his essential phagocytes he is a vast, amorphous matrix of being whose end in space or time no short-lived white blood cell can imagine. Speculating thus, he begins to seem to himself as "a misty light . . . floating and tenuous" as the Milky Way. Eiseley realizes that all creatures live in a universe fixed by their conceptual limits, but he also sees that we are all creatures "of many different dimensions passing through each other's lives like ghosts through doors" (UU 51).

In the chapter of The Unexpected Universe called "The Inner Galaxy," Eiseley recalls a fall which caused a gash on his forehead. As he had watched the blood stream from the wound and puddle in a bright pool on the sidewalk, he felt a tremendous sorrow and contrition for his clumsiness because he realized that the red blood cells, phagocytes, and platlets, "all the crawling, living, independent

wonder" that had been part of him "were dying like beached fish on the hot pavement" (UU 178). He says that he felt "a sensation of love on a cosmic scale" for these living cells and realized that the event was a catastrophe comparable to a sidereal galaxy "consciously suffering through the loss of its solar systems" (UU 178).

Eiseley describes an episode when he and part of "the other" outside him became one, the boundaries between self and world dissolving. In his essay "The Flow of the River" from The Immense Journey, Eiseley tells of his once in a lifetime escape of "the actual confines of the flesh"--his merging with time and space in a float down the prairie beginnings of the Platte River. Lying on his back in the Platte's shallow erratic streamlets which flow over channels that are partly the sand and gravel remains of "a mightier Ice Age stream bed," Eiseley experienced a "sort of curious absorption by water--the extension of shape by osmosis . . ." (IJ 16). Drawn by "a great desire to stretch out and go with this gently insistent water," Eiseley overcame his traumatic memory of a near-drowning in childhood, his non-swimmer's fear, and his anxiety that the shallow river was "treacherous with holes and quicksand" and flowed through a lonely land that would offer no help to a man in trouble. Lying supine in the water with sky wheeling overhead, Eiseley drifted into the main channel with "the sensation of sliding down the vast tilted face of the continent" (19). His awareness heightened by the danger, Eiseley experienced a transcendent sense of oneness:

> It was then that I felt the cold needles of the alpine springs at my fingertips, and the warmth of the Gulf pulling me southward. Moving with me, leaving its taste upon my mouth and spouting under me in dancing springs of sand, was the immense body of the continent itself, flowing like the river was flowing, grain by grain, mountain by mountain, down to the sea. I was streaming over ancient sea beds thrust aloft where giant reptiles had once sported; I was wearing down the face of time and trundling cloud-wreathed ranges into oblivion. I touched my margins with the delicacy of a crayfish's antennae, and felt great fishes glide about their work. (19)

Mesmerized by the flow, Eiseley expresses a Whitmanesque sense of unity with the primal element, that "indescribable and liquid brew":

> I was streaming alive through the hot and working ferment of the sun, or oozing secretively through shady thickets. It was water and the unspeakable alchemies that gestate and take shape in water, the slimy jellies that under the enormous magnification of the sun writhe and whip upward as great barbeled fish mouths, or sink indistinctly back into the murk out of which they arose. (20).

Eiseley recalls that Thoreau "in one of his moments of strange insight" referred to an emerald pickerel in Walden Pond as "'animalized water'" (20). The mystical, oceanic sense of oneness could not last. When finally rising out of the water, Eiseley says that he felt "the body's revolt against emergence . . . its reluctance to break contact with the mother element" (20).

The Night Country: "a shifting and unmapped domain of terrors"

Pascal believed that all men seek happiness but that we are "incapable of attaining the good by our own efforts." He also believed that our craving and helplessness proclaim "that there was once in man a true happiness, of which all that now remains is the empty print and trace" (Pensees 75). With the sense of the happy place ever behind, human beings become travelers, wanderers looking for the lost Eden, or searchers, picking through the ruins of joy for the cause of its loss and a means of reconstituting a vaguely remembered happiness. Eiseley says that "[c]ontent is a word unknown to life; it also a word unknown to man" (IJ 44). Life is characterized by a "magnificent and agelong groping . . . among stones and the indifference of the entire inanimate universe" (IJ 43). The compulsion to search, to move on, to become something new seems to be part of the nature of life itself: ". . . one of life's strangest qualities [is] its eternal dissatisfaction with what is, its persistent habit of reaching out into new environments and, by degrees, adapting itself to the most fantastic circumstances (IJ 37).

Eliade believed that all of nature possesses an "unquenchable ontological thirst," a thirst for being, and that the hidden numinous becomes the object of "human search and desire and yearning." Eiseley describes the journey as embedded in our very flesh and bones, and he himself shares the restlessness of creation. He says that he is "at heart a voyager who, in this modern time, still yearns for the lost country of his birth" (IP 1). Eiseley chose for himself professions--anthropologist and essayist--that would allow him to

follow his natural inclination to be a seeker--to stir among the debris and fragments of past civilizations "irretrievably lost" and among the orts and shards of his own psyche, exploring what it means to be human. Watching his own hand carefully digging out the fossil skull of a long extinct cat, the paleontologist sees the human hand--itself evolved from "fin and scaly reptile foot and furry paw"--as an apt symbol of the long wandering happenstance of evolution that produced humans. Regarding that journey, he writes:

> Perhaps there is no meaning in it at all . . . save that of journey itself, so far as men can see. It has altered with the chances of life, and the chances brought us here; but it was a good journey--long, perhaps--but a good journey under a pleasant sun. Do not look for the purpose. Think of the way we came and be a little proud. Think of this hand--the utter pain of its first venture on the pebbly shore.
> Or consider its later wanderings. (IJ 6-7)

Though he has the sense that man is "slowly achieving powers over a new dimension" containing a wisdom he has barely begun to discern, Eiseley believes the journey to "the final secret" will continue to be "difficult, immense, at times impossible" and that no one in one lifetime can "see all that we would like to see or learn all that we hunger to know" (IJ 12).

Along with an abiding sense of mystery and the feeling of joy lost somewhere in the past, the themes of flight, evasion, and fear bordering on terror permeate Eiseley's writing. Eiseley always speaks of himself and his solitary adventures in autumnal light or in

the "night country." In his foreword to the volume of essays he entitled The Night Country, Eiseley says the material comes from "the wilderness of a single life" and that his "thoughts are all of night, of outer cold and inner darkness" (NC xi). Eiseley describes himself as a fugitive--" . . . I am a fugitive. I was born one. . . . It is in the mind that the flight commences"--and calls his writing "the annals of a long and uncompleted running" (NC 4-5, xi). As a mythic wanderer, he claims to wear "the protective coloration of sedate citizenship" but insists that the "facts of my inner life are quite otherwise" and that his appearance of ordinariness is the "ruse of the fox" (NC 4). In the long course of time, he knows himself to be a transient: "There is a shadow on the wall before me. It is my own; the hour is late. I write in a hotel room at midnight. Tomorrow the shadow on the wall will be that of another" (NC xi).

Eiseley confesses to be "a man with night fear." With age he came to realize that "the night tide," invisible and imperceptible, is "always there, swirling like a vapor just beyond the edge of the lamp at evening and similarly out to the ends of the universe" and inspires "a need to huddle in somewhere with a light" (NC 32). With night, Eiseley says, a difference comes over things and creates terrifying possibilities--like discovering in the brief flare of a just-struck match the "pink, demoniac eyes" of a sewer rat. Yet, darkness also creates the possibility of marvelous illuminations, insights into the nature of things. Ever after witnessing as a young man his father's protracted and painful death, Eiseley suffered from insomnia--"sporadic,

wearing, violent, and melancholic"--but he learned to make the best of what would have been otherwise an unbearable affliction. As an insomniac, a night-stalker, he searched for the "small things important to our lives [that] have no reporter except as he who does not sleep may observe them" (NC 172). He found it to be the occasional privilege of the unencumbered night-dweller to witness "some single episode [that] may turn the whole world for a moment into the place of marvel that it is, but that we grow too day-worn to accept" (NC 172).

Eiseley remembers just such an illuminating experience--conveniently accompanied by lightning, as his night-time gothic adventures often are. He had been walking in rolling hills and came to an escarpment overlooking a deep valley and town:

> . . . a flash of lightning off to the south . . . lit for one blue, glistening instant a hundred miles of churning, shifting landscape. I have thought since that each stone, each tree, each ravine and crevice echoing and re-echoing with thunder tells us more at such an instant that any daytime vision of the road we travel. The flash hangs like an immortal magnification in the brain, and suddenly you know the kind of country you pass over, and the powers abroad in it. (NC 41-42)

After his rehearsal of a night of eventful wandering in the dark of open country, Eiseley describes his attraction to the lights of a town lying in the valley below him: "They were the world I knew. The mind inside us is vaster than the world outside and I had been wrestling with its terrors for a long time now" (NC 42). A prophet

come back from his time in the wilderness, Eiseley has a message: "Having journeyed once along the dark side of the planet, I am willing to testify that it is a shifting and unmapped domain of terrors" (NC 44).

Eiseley recalls an encounter with another illuminating night terror in an essay called "Strangeness in the Proportion." Against the background violence of an approaching thunderstorm in an area known for its bizzareness of fauna--human and insect--Eiseley says that he experienced a rare moment of night vision which came to him with a sear of lightning. Traveling alone and on foot, the young traveler had come to "a rural and obscure corner" putatively to search for "certain curious and rare insects that the place afforded--beetles with armored excrescences, stick insects which changed their coloration like autumn grass" (NC 146). The place was known for human proportion as strange as that of the insects: "It was a country which, for equally odd and inbred reasons, was the domain of people of similar exuberance of character, as though nature, either physically or mentally, had prepared them for odd niches in a misfit world" (NC 146).

Overtaken by the rain splatter and dark sky of an approaching storm, the "impressionable youth" stopped along a backwoods track to ask directions of the driver of a haywagon rumbling across a plank bridge toward him. Eiseley writes that "[t]here happened then, in a single instant, one of those flamelit revelations which destroy the natural world forever and replace it with some searing inner vision

which accompanies us to the end of our lives" (NC 147). As the horses galloped toward him and the dark figure of the farmer "swayed high above them in some limbo of lightning and storm," everything seemed to pause, even the rain, as a bolt of lightning lit the scene. Horror-filled, the young Eiseley sees in the momentary flash "within the heart of the lightning, haloed, in fact, by its wet shine . . . a human face of so incredible a nature as still to amaze and mystify me as to its origin":

> It was--by some fantastic biological exaggeration--two faces welded vertically together along the midline, like the riveted iron toys of my childhood. One side was lumpish with swollen and malign excrescences; the other shone in the blue light, pale, ethereal, and remote--a face marked by suffering, yet serene and alien to that visage with which it shared this dreadful mortal frame. (NC 147)

Eiseley shrank back in horror from the visage half demon, half angel, but, just before the hayrick disappeared phantom-like into the dark, Eiseley saw the driver raise a hand to shield his disfigured face.

Earlier in this essay, "Strangeness in the Proportion," in a paragraph that also begins with lightning flashes, Eiseley had alluded to Robert Louis Stevenson's assertion that each person contains "a group of incongruous and ofttimes conflicting citizenry"; Eiseley's subsequent description of the farmer's Jekyll and Hyde physiognomy sounds like Stevenson's portrayal of the good Doctor Jekyll whose science turns him into the brutish predator Hyde.[7] The apparition symbolizes Eiseley's sense of the biform, if not multiform, nature of

human nature and the necessity to make the choices that will decide which aspect will dominate. Eiseley attributes to humans frightening possibilities and equally terrifying responsibilities. He says that we have learned to our sorrow that there is "more than one world to be drawn out of nature" (NC 134). Eiseley believes we must relearn the aesthetic precept articulated by Francis Bacon and later taken up Edgar Allan Poe: "'There is no Excellent Beauty that hath not some strangeness in the Proportion'" (qtd. in NC 148).

Discerning a strangeness equal to the beauty of human proportions, Eiseley believed man must confront "his otherness, the multiplicity of other possible men who dwell or might have dwelt in him" so that he can then realize "the full terror and responsibility of existence" (NC 148). Only then will we experience the anxiety that Heidegger describes as fear based on the fact that what threatens us is nowhere, the anxiety through which are manifest the possibilities of either an authentic or inauthentic existence. The grotesque figure driving the hayrick becomes symbolic of the human condition:

> Across that midnight landscape he rides with his toppling burden of despair and hope, bearing with him the beast's face and the dream, but unable to cast off either or to believe in either. For he is man, the changeling, in whom the sense of goodness has not perished, nor an eye for some supernatural guidepost in the night" (NC 149).

As Eiseley describes it, the human journey is a flight from a terror that cannot be escaped--the awareness that each of us contains within us one or more versions of both Jekyll *and* Hyde.

For Eiseley, man himself is part of the universal and evolving mystery: "We must consider the possibility that we do not know the real nature of our kind" (IP 54). Heidegger said that Dasein is thrown into the world feeling orphaned and homeless, set apart by language to discover Being. Eiseley sees man as "[u]nlike the creatures who move within visible nature," more akin to "the changeling of medieval fairy tales" (NC 128). Estranged from "his earlier instinctive self," man has become "susceptible . . . to unnatural desires" and "subject to indefinite departure" though his destination remains indecipherable (NC 129). "[M]arred, transitory, and imperfect," man is isolated in a terrifying aloneness, cut off from communication with other life forms. Eiseley finds "something unutterably secretive involved in man's intrusion into his second world, into the mutable domain of thought" (IP 150). The human journey has led man "part way into an intangible realm determined by his own dreams," and he lives in the presence of terrifying possibility: "He knows that every step he takes can lead him into some unexplored region from which he may never return" (NC 129-130).

Destabilized by too much flux and terrifying possibility, our order-seeking minds may try to find or create boundaries or impose patterns where they can, but Eiseley finds this human order to be "at least partially an illusion": "Ours, in reality, is the order of a time, and of an insignificant fraction of the cosmos, seen by the limited senses of a finite creature. Behind the appearances . . . lurks being

unmanifest, whose range and number exceed the real" (UU 46). In a "farther stretch of the imagination," Eiseley wonders if somewhere "predictablility ceases and the unimaginable begins," and then he entertains the "heretical suspicion" that perhaps "our own little planetary fragment of the cosmos has all along concealed a mocking refusal to comply totally with human conceptions of order and secure prediction" (UU 31). The vast potential that hides behind the facade of creation exceeds our imaginations and is not susceptible to our control.

Eliade describes the need of *homo religiosus* to create sacred space which gives access to the transcendent. Eiseley describes a complementary need for nontranscendent, nonterrifying space--a place of anchor in this world, a place where *what-is* can be known by the senses--touched, seen, smelled, heard, and tasted. In response to the dread or threat of otherness arises the need, a characteristic common to living things, to declare holy ground, a marked-off territory, a place of at-homeness: "We cling to a time and a place because without them; man is lost, not only man but life" (NC 229). Like the field mouse which moved into Eiseley's apartment and tried to reconstruct under the fronds of a potted fern the "remembered field" of its original home (an empty lot become a building site), human beings need to set off in space/time a place of sanctuary which obscures our sense of the vastitude and impermanence of space and time. To Eiseley it seems that " . . . all living creatures, and particularly the more intelligent, can survive

only by fixing or transforming a bit of time into space or by securing a bit of space with its objects immortalized and made permanent in time" (NC 229).

Eiseley says that his own life was "passed in the shade of a nonexistent tree" (NC 234). As a boy, he had helped his father plant a cottonwood sapling behind a house in a little Nebraska town that was to be their permanent home; his father had promised the boy that their itinerant days were over and that they would care for the tree and grow old together sitting in its shade. The promise could not be kept, and Eiseley remembers his last watering of the tree the day they moved yet again. As a man, Eiseley returned to find the cottonwood tree that had grown in his imagination and had become a symbol for his father and the love they shared. He discovered that the tree had not survived though in his mind it had been part of his orientation in the universe. Eiseley says his attachment to the tree had been more than an animal's attachment to a place: "There was something else, the attachment of the spirit to a grouping of events in time; it was part of our mortality" (NC 235).

Trying to create a place of symbolic permanence is a defensive strategy for dealing with the dread occasioned by a world of flux and uncertain meaning. A more agressive tactic is to undertake an active search for meaning or order, to assault mystery head on. Eiseley recounted his "first miracle" listening to a seashell as a kind of mythic occasion for his childhood fall out of nature into awareness of nature, and he told of his early seduction by "the places below" as

the mystical origin for his sense of an alluring yet terrifying mystery beneath the surface of life--in time as well as space. He also gives mythical, childhood beginnings to his lifelong, solitary attempts to probe mystery and understand the nature of things. One reminisence of a childhood adventure, the first of many journeys, takes on the tone of a parable, a fabulous paradigm in miniature of the subsequent searches of a lifetime. Eiseley remembers his childish fascination with the golden yellow wheels of the tea wagon which visited his neighborhood.[8] Captivated by the idea of escaping the ordinary on this magical conveyence, the boy climbed surreptitiously on to the back step of the wagon and traveled for miles undetected by the driver. The journey--Eiseley calls it "the most marvelous I shall ever make in this life"--is magical and full of wonderment: "There was no flaw in my escape. The horse trotted with increasing speed over the cobbles, the wheels spun on either side of me in the sunshine . . . . Horseshoes rang and the whole bright world was one glitter of revolving gold" (NC 8). Eiseley recalls "the pounding echo of the horse's hoofs over wooden bridges" and shafts of light on the green meadows as the sky grew cloudier.

As the black clouds began "to boil and billow," the young boy realized that the tea wagon's destination was the bishop's house, a red granite edifice spoken of with awe by his elders; supposedly, only the baptised might pass inside of the black iron fence which surrounded the dwelling. The storm broke just as the wagon entered the grounds, and the boy darted off the back of the wagon and into a

hedge to hide: "The thunder from the clouds mingled with the hollow rolling of the wheels and the crash of the closing gates before me echoed through my frightened head with a kind of dreadful finality" (NC 10). In the intermittent flashes of lightning Eiseley realized he was not alone. Unknowingly, he had joined hundreds of silent brown birds who, exhausted in their migration, had also sought shelter in the bishop's hedge. Eiseley says of the creatures with whom he shared the sanctuary, " . . . they were immersed in a kind of waiting silence so secret and immense that I was much too overawed to disturb them" (NC 10). Gradually the storm moved on, and since the tea wagon had "unaccountably vanished," Eiseley crept out of the hedge and began the long walk home accompanied by an "obscure sense of loss": "It was as though I had been on the verge of a great adventure into another world that had eluded me; the green light had passed away from the fields" (NC 10).

Riding the fabulous tea wagon with golden wheels, Eiseley seemed to have come to the edge of a revelation, nearly to have stepped on holy ground, but then reality--the storm and his fear of being detected in a place he did not belong--intruded and the moment of possibility was lost. Or had he in fact participated in a kind of earthly holiness that went unrecognized? In the bishop's hedge, the boy and the birds, travelers bound by exhaustion and fear, shared for a time an Edenic harmony. In Notes of an Alchemist Eiseley includes a poem that pleads that God return all things to that bliss before creation where each may find the part of self that is

missing. He writes of "The Bats" that fly like human thoughts, "these are, and we ourselves may be, / fragments of the original creation" (IA 86). Shattered into being, the multiform fragments "fly / by shapes of thought or upon leathern wings to find / what's lost in each of us."[9]

> All, all are part
> of a fractured theology that God implants
> within such brains as ours and leaves
> the question open how to salvage
> these bits and pieces of
> the natural world that is not natural
> but a queer event created
> in minds still queerer. (NOAA 87)

The poet asks God to bring all things "back to what reigned before creation was": "Bring us then to where the heart of man may rest / before the torrent of the universal fall diverged its particles" (NOAA 88). He pleads for the deathless unity of Eden:

> bring us to
> the uncreated Adam;
> bring us back
> beyond the light-years
> into the light that was
> before this curving light that never ceases
> upon itself to run, but above all
> bring us
> to where bats, leaves, and men no longer know themselves
> the solitary occupants of night
> but rather
> the tenants of a Garden that must be because
> minds of His mind conceived of it although

> they choose to call it universal myth,
> thus naming on the night what was
> before inception. (NOAA 88)

Eiseley takes as evidence of the possibility of an Edenic, peacable kingdom the very fact that "minds of His mind conceived of it." In myth we tell ourselves that the thing we long for once was and that it may be yet again. We name "on the night what was before inception"--before the fall into being. As a man, Eiseley pleaded for what he had found briefly when a boy hiding in a hedge.

Earlier in his reminisence of "The Gold Wheel," Eiseley had told of finding in the rubbish of a rich family's incinerator a small gold wheel--a toy cast-off from a child's construction set: "To me it represented all those things--perhaps in a dim way life itself--that are denied by poverty" (NC 7). Never able to find the second to make a pair, the boy kept the single gold wheel as a fetish, a reminder of his self-promise to run away one day on a pair of gold wheels. Later, when he was a young man, the gold wheel reappeared for a third time. He and two other young men in a stripped-down car were pursuing a buck through open country. Eiseley had the rifle but delayed shooting, hoping the buck would leap a ravine and disappear into safety. Suddenly, the buck did just that, but the pursuing car, its occupants unaware of the gulch till the last moment, slammed into the far side of the narrow ravine and wedged precariously in place. As his head snapped back and then flew forward to hit the dash, Eiseley saw a golden wheel rolling on the

prairie grass and heard again the rumble of the tea wagon over the cobbles and the clang of the bishop's iron gate as the storm thundered. He remembered hiding from the storm with the silent brown birds. Glad the buck had escaped, Eiseley identified with the fugitive pursuing some dream of life, driven to seek shelter and a hiding place from human and natural vicissitudes. Eiseley says that he realized that there are invisible lines, invisible walls separating life and death, and he perceived the ominous threat known to fugitives: ". . . the lines were everywhere--a net running through one's brain as well as the outside world. Someday I would pass through the leaves into the open when I should have stayed under the hedge with the birds" (NC 12). Although he sensed that his safety was linked with that of other creatures, before his companions Eiseley maintained the pretense, the ruse, and looked "all around the horizon like a hunter" (NC 12).

One of the mysteries Eiseley uncovered in childhood was the presence of unexplainable evil. His boyhood memory of this discovery joins water and darkness and the cruel death of a giant turtle. The scene takes place at sunset with Eiseley "like a child following goblins home to their hill at nightfall" (NC 5). The goblins were older boys in rough clothes and sly worldly eyes, boys who "knew where they came from and how to get back" (NC 5). They led the young Eiseley to Green Gulch--"a huge pool in a sandstone basin, green and dark with the evening over it and the trees leaning secretly inward above the water" (NC 5). The boys played innocently

until one of them discovered "the spirit of the place, a huge old turtle asleep in the ferns" (NC 6). Then the horrified child watched as "the last lord of the green water" was pounded to death with stones. The goblins then turned their pack ferocity on the child who had witnessed their viciousness. When he was finally turned loose to follow the street lamps home, the young Eiseley moved "slowly from one spot of light to another," thinking the things a child thinks who has just discovered evil. Eiseley writes as a middle-aged man, "I never forgot that moment. . . . I had discovered . . . . a monstrous and corroding knowledge" (NC 6). Thereafter, a much darker, terrified Alice, the boy Eiseley began "seeking for the loophole in the fern where the leaves swing shut behind [the fugitive]" (NC 5). This brutal, terrifying example of the human capacity for blind, destructive evil retells the mythical fall and becomes for Eiseley a harbinger of what our marauding species might inflict on the natural world.

The Open-Ended Universe: "A ticket to wherever it is"

Eiseley describes man as a mystery--"an indecipherable palimpsest, a walking document initialed and obscured by the scrawled testimony of a hundred ages" (NC 59). His past, present, and future are "half-effaced signatures written across his features and into the very texture of his bones" (NC 59-60). Eiseley likened himself to an ancient Greek chresmologue, a dealer "in crumbling

parchments and uncertain prophecies." Such a one, says Eiseley, must be "alert to signs and portents in both the natural and human world" (NC 62). Seemingly trivial overheard conversations may be spoken by those unconscious of the significance of what they say. Such portentous words "may be spoken upon journeys, for it is then that man in the role of the stranger must constantly confront reality and decide his pathway" (NC 62).

Eiseley claims to have overheard just such a cryptic message spoken by a ragged, emaciated derelict sleeping on a night train traveling between New York and Philadelphia. When awakened by the conductor demanding a ticket, the derelict with "a dead man's eyes" brought out a roll of bills and in a voice that "held the croak of a raven in a churchyard" asked, "'Give me . . . a ticket to wherever it is'" (NC 63). Eiseley hears epitomized in the reply of "that cadaverous individual" the difference between modern time and Christian time and hears pronounced in the croaked request "the destination of the modern world . . . . In a single poignant expression this shabby creature on a midnight express train had personalized the terror of an open-ended universe" (NC 63). Asserting that he was "professionally qualified" to recognize an oracle and believing that "[g]ood prophecy is always given in riddles," Eiseley hears in the phrase "a ticket to wherever it is" a moral judgment: "No civilization professes openly to be unable to declare its destination. In an age like our own, however, there comes a time when individuals in

increasing numbers unconsciously seek direction and taste despair" (NC 64).

In The Invisible Pyramid, Eiseley describes the human compulsion to escape various enclosures. The cosmic prison--vast sidereal space which shuts us in our own solar system with light-year distances to anything beyond-- is subdivided into "an infinite number of unduplicable smaller prisons, the prisons of form" (IP 45). Man becomes a roamer looking for the way out of an endless series of Chinese boxes--language, genetics, senses, culture, cosmos. While form makes being possible, form also limits the possibilities of being. The mystery of life is locked inside individual skins: "To the day of our deaths we exist in an inner solitude that is linked to the nature of life itself" (IP 48). Despite loving attachments, Eiseley says that "loneliness . . . is the price of all individual consciousness--the price of living" (IP 48). In human beings, consciousness perceives itself as isolated even from the body it inhabits. The mind like a giant inhabits "the true cosmic prison," the body. But, Eiseley says, "[i]nside has conquered outside":

> The giant confined in the body's prison roams at will among the stars. More rarely and more beautifully, perhaps, the profound mind in the close prison projects infinite love in a finite room. This is a crossing beside which light-years are meaningless. It is the solitary key to the prison that is man. (IP 49)

The mind's eye, the imagination, can reach out and bind self and object through an enhanced, inclusive vision of the world. In Eiseley's poem "Fly Falcon," the mind becomes--

> the ever widening eye
> of the living world, the eye that someday
> will see all as one, the eye of the hurricane,
> the eye
> at the heart of the galaxy with the spinning
> arms of the suns about it. (AKA 40)

In "Fly Falcon" Eiseley says that his mind travels with the falcon, the Monarch butterfly, the gull, the night-tiger, and the albatross. Together, their staring, living eyes make the world real:

> We are all
> the terrible eye that sees the galaxy,
> we make it real.
> Without us multiplied, what really exists?
> Fly falcon, stare tiger in the night grass,
> stare that the universe may find itself living
> beyond the immortal fires. (AKA 41)

It is possible for consciousness to become the living witness testifying to creation, to become the bond that sees "all as one."

However, contrasting the primitive with the modern view of nature, Eiseley concludes that the experimental methods of science seem to have merely widened "the area of man's homelessness" (UU 48). Eiseley describes in The Invisible Pyramid what Eliade called the desacralization of the cosmos. Primitive man had "projected a

friendly image upon animals," presuming that they talked among themselves, thought rationally, and even had souls. In some cases, totemic animals were even thought to have fathered man. Of that primitive relationship with nature, Eiseley says, "Man was still existing in close interdependence with his first world, though already he had developed a philosophy, a kind of oracular 'reading' of its nature" (IP 143). Primitive man was still "inside that world; he had not turned it into an instrument or a mere source of materials" (143).

With Christianity's interest in the destiny of the individual soul and the increase of urbanization, "man drew back from too great intimacy with the natural . . ." (IP 143). The intellectual gain of "a monotheistic reign of law" prepared the way for the rise of modern science, but it destroyed the spirits of the natural world and made animals soulless and mute. Detached science began to view nature "as might a curious stranger": "Man, too, would be subject to what he had evoked; he, too, in a new fashion, would be relegated soulless to the wood with all his lurking irrationalities exposed. He would know in a new and more relentless fashion his relationship to the rest of life" (IP 144). In earlier cultures the entire environment occupied human attention; if parts of nature were not of practical use, they often became part of patterns that had magical efficacy. In the technological age, however, those aspects of nature which are not useful are simply thrust aside. In the primitive world, "[n]ature was sacred and contained powers which demanded careful propitiation.

Modern man, on the other hand, has come to look upon nature as a thing outside himself--an object to be manipulated or discarded at will" (IP 59). Eiseley believed that technology and its vocabulary have become the primary world, "the sacred center," for modern man. But he also believed we deceive ourselves. Human beings are not outside of nature; we are within nature and nature is within us. Carrithers, who describes Eiseley as a prophet speaking his jeremiad against the idol worship of scientific technology, notes that "[w]hen man affects to triumph over 'nature,' the vanquished must include himself, for good or ill" (Mumford, Tate, Eiseley 203).

Sir Arthur Stanley Eddington in his 1929 Swarthmore Lecture to the yearly meeting of the Society of Friends said that we can "understand the true spirit of neither science nor religion unless seeking is placed in the forefront" (Science and the Unseen World 88). In human beings the compulsive reaching out characteristic of all life has had a peculiarly human manifestation--the desire for self-transcendence. In The Unexpected Universe, Eiseley writes that man is a seeker, "at heart a listener and a searcher for some transcendent realm beyond himself" (UU 55): "Stimulated by his own uncompleted nature, man seeks a greater role, restructured beyond nature like so much in his aspiring mind" (IP 146). Eiseley attributes this restless search for completion to a feeling that man's life is "unreal and sterile" and speculates that alienation from his world is perhaps the inevitable fate of "a creature of so much ingenuity and deep memory" (IP 147). The only remedy Eiseley sees is an

"enlightenment of spirit" which would include "some ability to have a perceptive rather than an exploitive relationship with his fellow creatures" (IP147)--to have what Buber called an I-Thou rather than an I-It relationship with the cosmos and all it contains.

One such an enlightenment of spirit had occurred in the first millennium B.C. with the mysterious intellectual transformation that the philosopher Karl Jaspers called the "axial age" because all history seems to revolve around it as on an axis (Barnes, In the Presence of Mystery 46). This axial period saw the great centers of civilization (China, India, Judea, Greece) abandon the old, inherited gods and purely tribal loyalties. Under the influence of transcendent thinkers (Christ, Buddha, Lao-tse, Confucius) these civilizations developed transcendent values and "created the world of universal thought that is our most precious human heritage" (IP 147). The emphases of the axial age were on respect for the dignity of the common man, on rejection of material goals and earthly power, and on a transcendent divinity or force that enfolded all of creation. The nearly simultaneous origins and the power of the axial religions remains mysterious: "No one can clearly determine why these prophets had such profound effects within the time at their disposal. Nor can we solve the mystery of how they came into existence across the Euro-Asiatic land mass in diverse cultures at roughly the same time" (IP 148). Eiseley says that "the human ethic of the individual prophets and thinkers has outlasted empires" and that tormented man still pursues their dreams of charity and humility and nobleness today

(IP 148). He describes the axial thinkers as the discoverers, if not the creators, of the soul (IP 155).[10]

However, Eiseley believed that the scientific age has replaced the axial religions as the dominant power in the human imagination and that we are in the process of substituting science for the old gods. Although we still live in "the inspirational light" of the axial transformation of thought, for human beings the emphasis has changed: "The axial religions had sought to persuade man to transcend his own nature; they had pictured to him limitless perspectives of self-mastery. By contrast, science in our time seems to offer to man the prospect of limitless power over exterior nature" (IP 152). This will to dominance over the natural world has led us to take for granted the earth--"an incredibly precious planetary jewel" (IP 152). Eiseley says that we must come to recognize that we share a common journey in space with all of life: "We are all of us--man, beast, and growing plant--aboard a space ship of limited dimensions whose journey began so long ago . . ." (IP 153).

The Invisible Pyramid: "to understand life man must learn to shudder"

Given our multiform, mysterious, sometimes nefarious natures, Eiseley feared that even some of our scientific searches may be prompted by motives we ourselves do not understand. Darkly, he speculates that man may be driven to bursting forth into space

exploration by an impulsion similar to that which motivates slime molds to disseminate spores--by "some incalculable and ancient urge . . . hidden beneath the seeming rationality of institutionalized science " (IP 54). Among the things we do not know are our own possibilities. Eiseley says that the "whole of time and history" attest that we do not know what is possible or what is impossible. Eiseley considers the possibility that humans may be one of a number of "diabolically ingenious" parasites--instruments "for the transference, ultimately, of a more invulnerable and heartless version" of ourselves (IP 55). Speculating on his own motive for rescuing a lone milkweed seed from a concrete city that offered it no possibility of life, Eiseley says that he may have simply felt empathy for a fellow-traveler or that he wished for something green to survive the world-eating metropolis. Whatever his motivation, the gesture allows him to believe that "something is still undetermined in the human psyche" and that our choices will contribute to determining what human nature is to be (IP 56).

Eiseley's awed celebration in The Immense Journey of the bursting forth of angiosperms, the seed-bearing plants that one hundred million years ago changed the coloration and the floral and faunal life of the planet, is a paean to the life force driving evolutionary change. In The Invisible Pyramid the hidden but insistent urge of life to reach out takes on a sinister tone. Reflecting on the human urge to travel and explore as it was being manifested in the early enthusiasm for space probes, Eiseley describes a

botanical anticipation of human rocketry--*Pilobolus*, a spore-shooting fungus (IP 75). Growing upon cattle dung, *Pilobolus* fulfills its life cycle by firing a spore-containing capsule several feet away where, with luck, the spore will land on vegetation that will then be eaten by grazing animals. Eiseley says that the spore tower which launches the capsule is one of nature's remarkable evolutionary adaptations. A light-sensitive "eye" cell beneath the spore capsule directs its growth toward the area of greatest light, and, after chemically building sufficient launch pressure, fires the capsule in the direction that offers it the best chance to adhere itself to vegetation and be eaten by herbivores, thereby perpetuating its species.

Eiseley finds a parallel between the *Pilobolus'* space launch and "man's latest adventure": "Man, too, is a spore bearer. The labor of millions and the consumption of vast stores of energy are necessary to hurl just a few individuals . . . on the road toward another planet" (IP 76). Eiseley observes that both *Pilobolus* and *Homo sapiens* have evolved out of the same process: "Somehow in the *mysterium* behind genetics, the tiny pigmented eye and the rocket capsule were evolved together" (76). Eiseley grimly speculates that there may be growing within the collective human psyche an unconscious contingency plan for launching rockets bearing human spores toward potential life-giving homes in space, when we as a "planet virus" have defiled and exhausted the earth so that it can no longer sustain our species. Eiseley finds--

> . . . a certain grandeur . . . in the thought of man in some far future hour battling against oblivion by launching a final spore flight of cyborgs through the galaxy--a haven-seeking flight projected by those doomed never to know its success or failure, a flight such as life itself has always engaged in since it arose from the primeval waters. (IP 81)

Man has been from the beginning part of "that torrential living river, which . . . has instinctively known the value of dispersion" and "will yearn to spread beyond the planet he now threatens to devour" (81). But, despite the "certain grandeur" in an attempt by a desperate species trying to avoid its earned destruction, Eiseley says that man will find no peace in "cyborgs and exosomatic evolution." Eiseley says that the only road to human transcendence is to make "in one's soul a road to the future" and he warns that ". . . the spaces within stretch as far as those without" (IP 82).

Eiseley, who had greatly admired the voyages of discovery by Odysseus, Captain Cook, and Darwin, came to see space flight as a futile and wasteful act of hubris that encouraged contempt for earth. Writing of what Oswald Spengler in The Decline of the West called "the Faustian culture," Eiseley suggests over-reaching human aspirations may have had their beginning "as early as the eleventh century with the growing addiction to great unfillable cathedrals, with huge nave and misty recesses where space seemed to hover without limits" (IP 84). He saw hidden within the tensions of the Gothic arch "the upward surge of the space rocket" (84). For people

tormented by the "infinite solitude" of the individual soul and hungering for forbidden knowledge, the Faust legend came to epitomize Western culture. In Christian symbology, the search became the Quest for the Holy Grail (IP 85). Eiseley speculates that roots of science began in the Gothic *zeitgeist*:

> It well may be that the new world, which began amidst time-tolling bells and the stained glass and dim interiors of Gothic cathedrals, laid an enchantment upon the people of Western Europe that provided at least a portion of the seed bed for the later rise of science . . . . In its highest moments, science could also be said, not irreverently, to be a search for the Holy Grail. (IP 85)

In fact, science demands "great sacrifice, persistence of purpose across the generations, and *an almost religious devotion* " (IP 87; emphasis added). Eiseley describes the enormous investment of resources and intellectual energy in the pursuit of space exploration as "a public sacrifice equivalent in terms of relative wealth to the building of the Great Pyramid at Giza almost five thousand years ago" (IP 87). He says that modern science is instead constructing an *invisible pyramid.* Eiseley concludes that man's attempts to journey into space may simply be another manifestation of "life engaged once more on an old journey" with the "supreme objective" hidden from the participants by secretive nature. Eiseley speculates that " . . .an invisible pyramid lies at the heart of every civilization man has created, that for every visible brick or corbeled vault or upthrust skyscraper or giant rocket we bear a burden in the mind to excess,

that we have a biological urge to complete what is actually uncompletable" (IP 132).

Looking back on other civilizations of great technical or scientific accomplishment (like the pyramid-building Egyptian or the time-calculating Mayan), Eiseley sees a common flaw: "Too often they grow like a malignancy, in one direction only" (IP 132). In a clearing slashed in the little remaining woodland near his suburban home, Eiseley saw reality unmasked behind the thin stand of trees which had hidden the depradation of the "green world." With the revelation, he has a presentiment of the self-inflicted demise of a civilization of "world-eaters":

> The clearing was artificial, a swath slashed by instruments of war through the center of the wood. Shorn trees toppled by bulldozers lay beneath the snow. Piles of rusted machinery were cast indiscriminately among the fallen trees. I came forward, groping like the last man out of a shell hole in some giant, unseen conflict. Iron, rust timbers--the place was like the graveyard of an unseen, incessant war. (IP 130)

Eiseley sees in "the midnight clearing and its hidden refuse of fallen trunks and cogwheels . . . . the pyramid that our particular culture was in the process of creating" (IP 133). Like a slime mold, we are feeding on a world of finite resources, consuming voraciously what never can be duplicated. Eiseley believes that our invisible pyramid will destroy us because the planet cannot "long sustain this tottering pyramid thrust upward from what had once been the soil of a consumed forest" (IP 133). Remembering the words from

Christopher Marlowe's retelling of the Faust legend--"Thou art still but Faustus / and a man"--Eiseley fears that our humanity, driving us to be world eaters and knowledge seekers may be "a well-nigh fatal flaw" (IP 134).

Eiseley prophesied against this dark side of science. For many people science had replaced "primitive magic as the solution for all human problems" (IP 90). Unfortunately, science shares a flaw which is part of the nature of the universe: Science can solve problems, but it also creates problems. Science has solved many mysteries and discovered many others. Science has the potential for changing the world as we perceive it: "The skills expended now upon space may in the end alter our philosophies and rewrite out dreams, even our very concepts of the nature of life--if there is life--beyond us in the void" (IP 93). Science also has the potential for providing us with the means of destroying life on our own planet. Eiseley remembers that the zero was "invented twice in the mists of prehistory," once by an unknown Hindu mathematical genius and once by a unknown Mayan mathematical genius. The zero which lies at the root of all complicated math "is not a 'thing. Rather, it is a 'no thing,' a 'nothing'" (IP 86). Yet this *nothing* is essential to the computer circuitry which guides a rocket on its path to Mars. Eiseley notes the ironic duality of the discovery of the concept of zero by "an unknown mathematical genius seeking pure abstract understanding" (IP 86). Each of the time-lost discoverers of the zero was "a necessary prehistoric prelude to the success of the computer" and

"the possible indirect creator of world disaster in the shape of atomic war" (IP 86-87). Humanity, like the farmer with the face of an angel and a demon, has a dual (or multiform) nature and has unleashed forces over which we have only tenuous control.

Human history contains the remnants of the Faustian aspirations of other civilizations long lost along with their dreams:

> Around the globe, more than one such society of clever artisans has arisen and placed its stamp, the order of its style, upon surrounding objects, only to lapse again into the night of time. Each was self-contained. Each, with the limited amount of wealth and energy at its disposal, placed its greatest emphasis upon some human dream, some lost philosophy, some inner drive beyond the satisfaction of the needs of the body. Each, in turn, vanished. (IP 91)

Remembering that "an old tale" teaches that "to understand life man must learn to shudder," Eiseley oberves that "[t]his century seems doomed to master the lesson" (IP 92).

The "intensely aggressive" personality of Western civilization has evolved a scientific society whose "constant expectations" are future-directed, away from an unsatisfactory present toward "progress" and an elusive Utopia. Unfortunately, Eiseley finds that "[i]n the endless pursuit of the future we have ended by engaging to destroy the present" (IP 105). We have invested more in moon voyages that in solving "the moral problems of a distraught, unenlightened, and confused humanity" and are therefore left "wandering in the infinitude of space and time" while at the same

time "trapped in a world of darkening shadows . . . " (IP 107). Eiseley warns that man "has yet to prove that he can master the powers he has summoned up" (109). Eiseley saw the inventions of science as examples of the continuing search for transcendence:

> Man's urge toward transcendence manifests itself even in his outward inventions. However crudely conceived, his rockets, his cyborgs, are intended to leap some void, some recently discovered chasm before him, even as long ago he cunningly devised language to reach across the light-year distances between individual minds. (IP 125)

Eiseley feared, however, that man may forget the message of curiosity and hope that started him on his journey toward transcendence and may fail to sanctify his own being (IP 127). In The Firmament of Time he wrote: "Man's quest for certainty is, in the last analysis, a quest for meaning. But the meaning lies buried within himself rather than in the void he has vainly searched for portents since antiquity" (FOT 179).

The Paradox of Return: "the spell of a greater and a green enchantment"

Eiseley offers an apocalyptic view of the human mind. He finds "something unutterably secretive involved in man's intrusion . . . into the mutable domain of thought," and he sees in the collective human brain a "unique and spreading force" which will either "precipitate the last miracle, or . . . wreak the last disaster" (IP 150, 137). He

says the nature of that potential "last disaster" has become all too evident: "man has become a spreading blight which threatens to efface the green world that created him" (IP 137). To avoid destroying the natural world that has made him, Eiseley believes that man must journey back to the green world of his beginning. The "last miracle" requires that man, "the relatively unthinking and proud creator of the second world--the world of culture," must "revivify and restore the first world which cherished and brought him into being"; he must reenter nature (IP 137). Whatever the magic powers of his mind, man "lies under the spell of a greater and a green enchantment . . . the spell of the natural world from which he sprang" (IP 140).

What is increasingly required, Eiseley believes, is that man "pursue the paradox of return"; he must find his way back to a harmony with the natural world. Eiseley establishes the motif of eternal return, of homing, with a short and probably apocryphal vignette at the very outset of The Invisible Pyramid.[11] In the first chapter, called "The Star Dragon," Eiseley tells of what he calls one of his earliest and most cherished memories--being taken as a four-year-old child out "under the cottonwoods of a cold and leafless spring to see the hurling emissary of the void," the 1910 passing of Halley's comet. His father asks the small boy's promise that he will remember the midnight spectacle and look for it again in seventy-five years when the father himself "will be gone": "'I will be gone, but you will see it. All that time it will be traveling in the dark, but

somewhere, far out there'--he swept a hand toward the blue horizon of the plains--'it will turn back. It is running glittering through millions of miles'" (IP 7). Years later, recalling his childish promise given "out of love for a sad man who clung to me as I to him" (IP 8), Eiseley anticipates the comet's return. Man is like the comet--"both bound and free. Throughout the human generations the star has always turned homeward" (IP 155-156). Now, Eiseley believes, man himself must turn homeward and honor the green world from which he came. He must find some accommodation and make out of the first world of nature and the second world of culture a third world which honors both his need for transcendence and the imperative to preserve the world which grew a creature that could seek self-transcendence.

> He must now incorporate from the wisdom of the axial thinkers an ethic not alone directed toward his fellows, but extended to the living world around him. He must make, by way of his cultural world, an actual conscious reentry into the sunflower forest he had thought merely to exploit or abandon. (IP 155).

Eiseley says man must perform one last magic: "He must seek his own way home" (IP155).

Yet Eiseley also perceives in man an "inner flight syndrome," a fear of and resistance to return. His desperate emergence from fen and thicket by the magical act of thought makes man uneasy, questioning his right to have left the world of nature for the world of mind. Eiseley describes a vague, spirit-demon from our prehistoric

past haunting our subconscious: out of the marshes "[s]omething unseen has come along with each of us" and is the price we pay for "bringing almost the same body through two worlds." Auden, who was an admirer of Eiseley and dedicated a poem to him, made a "slight criticism" of his style, complaining that occasionally Eiseley would write a "'woozy'" sentence, "too dependent upon some private symbolism of his own to be altogether comprehensible to others" ("Concerning the Unpredictable" 118). Waxing mystical, Eiseley also gets woozy and vague, declaring that "[w]ritten deep in the human subconscious is a simple terror of what has come with us from the forest and sometimes haunts our dreams" (IP 150). Man, therefore, fears retracing his steps "down to the margin of the reeds," the garden world of nature from which he came, because he may be "by some magic . . . permanently recaptured" (IP 150). Eiseley says that the "curious sorcery of sound symbols and written hieroglyphs in man's new brain had to be made to lure him farther and farther from the swaying reeds" (IP 151). The crossing from the world of nature into the world of mind condemns man to be a wanderer: "A creature who has once passed from visible nature into the ghostly insubstantial world evolved and projected from his own mind will never cease to pursue thereafter the worlds beyond this world" (IP 151). Even so, the aspirations of space travel compel man to "contemplate with renewed intensity" the ancient world of the body he is "doomed to inhabit, the body that completes his cosmic prison" (IP 151).

For Eiseley, life is a search conducted under both skies, the inner as well as the outer: "Every man contains within himself a ghost continent" that awaits his wary exploration and each man, like Odysseus, seeks his spiritual home but is denied it (UU 3-4). The "shape-shifting immortal monsters" told of by Homer in the Odyssey assume "more sophisticated guises" in later time, but "they survive because man himself remains and man has called them forth" (UU 4). As the Odyssey is a journey of outward adventure and inward reflection, Eisley sees--

> [in] the epic journey of modern science . . . a story at once of tremendous achievement, loneliness, and terror. Odysseus' passage throught the haunted waters of the eastern Mediterranean symbolizes, at the start of the Western intellectual tradition, the sufferings that the universe and his own nature impose upon homeward-yearning man. (UU 4)

Twentieth century man has a "thirst for illimitable knowledge" which conflicts with his "search for serenity obtainable nowhere upon earth" (UU 5). The thirst for knowledge and the insatiable hunger for power have become the Sirens' songs of the modern era. Eiseley finds in Circe's observation to Odysseus that "'There is a mind in you no magic will work on'" both a compliment on the dawning of scientific intelligence among the Greeks and the enchantress' veiled warning that *hubris* is its own spell and can destroy man on the rocks of his own over-reaching and misguided imagination.

In Darwin's voyage to the Encantadas, Eiseley saw a renactment of Circe's transformation of Odysseus' crew to pigs. Darwin's journey "into the bottomless sea of time" led him to discover "a power hidden in time and isolation that alone could transmute, not just men, but all things living into wavering shadows" (UU 15). The myth of Circe anticipated the science of evolution: "The Encantadas are the means by which the whole Circean labyrinth of organic change was precipitated upon the mind of man. What had appeared to Odysseus as the trick of a goddess was, in actuality, the shape shifting of the incomprehensible universe itself" (UU 15). Eiseley lamented that "we are destined to know the dark beyond the stars before we comprehend the nature of our journey," and he knew that the way to wisdom was past the reef of Sirens who sang only of knowledge (UU 25).

Eiseley feared the barren knowledge that comes without sympathetic perception, and dreaded that the "scientific priesthood" might become a dark force like the peripatetic earth goddess of primitive Scandinavia whose worship required, in each village visited by her oxen-drawn tabernacle, a human sacrifice drowned in the bog. He feared " . . . that behind the concealing drapery, hooded in a faceless cowl, there is caught only the swirling vapor of an untamed void whose vassals we are--we who fancy ourselves as the priesthood of powers safely contained and to be exhibited as evidences of our own usurping godhood" (UU 20).

Eiseley's writing is a mixture of awe and reverence-- love for "the queer / twist of a narwhal's tusk, stag beetles' horns, / a white owl from some tundra flown away" (IA 39)--and a piercing sadness for all this beauty and wonder that cannot last, compounded by a growing dread of humankind's participation in the accelerated destruction of the natural world. In "Beau," his elegy for a huge black poodle, Eiseley sums up what he has learned of life: "I am no philosopher. I merely know / everything good has an end" (AKA 43). His essays and poems are imbued with the sense of a world eternally in process and of humans as a precocious species, gifted with extraordinary capacities but flawed by our one great strength. We humans, "a tough ill-mannered beast, outthinking all the rest" managed to survive the ice that eliminated so many other species, but "[t]here's just one thing: whatever made us never taught / how to outthink ourselves" (AKA, "Why Does the Cold So Haunt Us?" 78).

Like the saber-toothed tiger, we are flawed by our special gift, our uniqueness. In his poem "The Innocent Assassins," Eiseley remembers the discovery "in the sun-fierce badlands" of the remains of one of those ancient cats "far down in all those cellars of dead time." Forty million years before, the cat had died "no ordinary death":

> Deep-driven to the root a fractured scapula
> hung on the mighty saber undetached; two beasts
> had died in mortal combat, for the bone
> had never been released . . . . (IA 79)

An attentive, "little silent group" of diggers had squatted over the fossilized evidence of prehistoric violence.

> What was it made the mystery there? We dug
> until the full length of the striking saber showed
> beautiful as Toledo steel, the fine serrations still
> present along the blade, a masterpiece of murderous art
> conceived
> by those same forces that heaved mountains up
> from the flat bottoms of Cretaceous seas. (IA 79)

"[P]erfect as yesterday," the cat's "marvelous weapon" had been its cause of death--"the cat's sheer leap wrenched with his killing skill / his very self from life" (81). The cat had died with its saber tooth trapped in the shoulder blade of its victim. Thousands of years later, a creature of awe would find the remains and memorialize the violent irony of its death. In another poem Eiseley mourns that "when we vanish / no one will tell stories about our cleverness." He fears a planetary destruction so complete that no creature of curiosity and memory and the skill to perfect those traits would survive to discover and understand our remains. He fears that "In the Tales to Come," we, the "[l]overs of form . . . will be formless" (AKA 38).

In The Night Country, Eiseley declared in plaintive hope, "Amidst so many journeys somebody is bound to come out all right. Somebody" (228). Later, in his autobiography All the Strange Hours, Eiseley stated flatly, "Life is a journey and eventually a death" (50).

Lawrence I. Berkove, in his essay "Refuge in the Valley of Dry Bones: Loren Eiseley's Accommodation to Death," finds Eiseley's writing moving from a celebratory affirmation of the Life Force to a profound melancholy expressed in "a steady drift toward pessimism," sentimentality, and, finally, nihilism. From the celebration of The Immense Journey, to the ambivalence of The Night Country, to the search fo hope in The Man Who Saw Through Time, to the slide toward pessimism in "Thoreau's Vision of the Natural World," to the bleakness in his autobiography All the Strange Hours and the dark sentimentality of his novel fragment "The Snow Wolf"--Berkove says that Eiseley eventually "lost most of his hope for the human race" and, in the end, "extinction was the only escape he could ultimately find from the merciless process of evolution at work" (87-88) and what Emerson called "'the virulence that still remains uncured in the universe'" (ST 214). Berkove finds Eiseley "emotionally oppressed" and finally dominated by his melancholy: "His literary talents never diminished, but his ability to balance the scientific and imaginative parts of his mind did" (95). He says that the "sad truth" of Eiseley is that "nature lost its mystery for him and he abandoned hope and became thanatocentric" (95). Toward the end of his life, when Eiseley became detached from direct involvement in science and from close contact with the natural world, he turned even more to the melancholy that had always haunted him. The aging prophet, who had legitimate criticisms to make of the uses of science and reasonable questions to ask about the expenditure of public

resources on space flight, spoke in generalities about the green world and the paradox of return, but his vision had lost its hope.

Wilbur: "By rooted hunger wrung"

Wilbur considers all poetry to be "essentially religious in its direction":

> . . . I think that all poets are sending religious messages because poetry is, in such great part, the comparison of one thing to another; or the saying, as in metaphor, the one thing is another. And to insist, as all poets do, that all things are related to each other, comparable to each other, is to go toward making an assertion of the unity of all things."
> (qtd. in Pate. "An Interview" 66)

According to Wilbur, poetry, even poetry written by poets not consciously religious, "makes order and asserts relations (sometimes of a surprising kind), out of a confidence in ultimate order and relatedness" (qtd. in Pate, "An Interview" 67). In his essay "Sumptuous Destitution," he says of Emily Dickinson that even though she made it impossible for herself to share the religious life of her community, "hers was a species of religious personality" and she became "an unsteady congregation of one" (6). In "The Present State of Whitman," Wilbur sees Whitman not simply as the poet of democracy and the common man but also as a religious poet: "His political and social attitudes are not primary, but are based on a mystic sense of the divinity of the individual soul" (150). He

attributes Whitman's power as a religious poet to his mystical inclusiveness: "He will not scorn the material, the physical, the urban, the vernacular, the particular and everyday. He leaves nothing out" (150). Referring to Robert Frost's "The Gum-Gatherer" and the poems which precede and follow it in the Selected Poems ("After Apple Picking," "Birches," and "The Mountain"), Wilbur writes that "all the poems in question are concerned with spiritual activity (religion, the bestowal of love, the writing of poems), and with balancing the claims of earth and heaven" ("On Robert Frost's 'The Gum-Gatherer'" 186). In his own poem "Walking to Sleep," Wilbur has the speaker warn his insomniac listener,"Try to remember this: what you project / Is what you will perceive" (Poems 158). What Wilbur has perceived as religious in the poetry of Dickinson, Whitman, and Frost is what he has projected in his own.

In his poem "Water Walker," Wilbur finds in the lifecycle of caddis flies a metaphor for the human predicament of being pulled between this sensory world and the intuition of some world beyond the senses. Treading "on spring-surface," the small, moth-like flies are, in their adult stage, "water walkers who breathe / Air and know water . . ." (Poems 338). The larvae grow from eggs laid after the adults spend "lightly some hours in air," then drop to the "water-top . . . / Floating their heirs and dying" (Poems 338). These "[l]ives that the caddis fly lays / Twixt air and water, must lie / Long under water" (Poems 340-341). The larva live immersed in the element,

each hermiting itself inside a cave of silk plastered on the outside with fine gravel or bits of wood or straw:

> Armored the larva rests
>
> Dreaming the streambottom tides,
> Writhing at times to respire, and
> Sealing to him flat stones,
> He closely abides, abides . . . . (Poems 339)

Of the mature caddis fly, the poet writes "There is something they mean / By breaking from water and flying . . ." (Poems 338). For the brief time of its mating flight, the caddis fly lives between worlds:

> Still pearled with water, to be
>
> Ravished by air makes him grow
> Stranger to both, and discover
> Heaven and hell in the poise
> Betwixt 'inhabit' and 'know' . . . .
> (Poems 340)

With minds that allow us to fly beyond our native element in time and space, we human beings also "discover / Heaven and hell in the poise / Betwixt 'inhabit' and 'know.'" We, too, become strangers and wanderers caught between worlds.

In the last two verses of "Waterwalker," the poet turns to ask himself if he can find the holy among the flotsam of life, if he can walk to "the point where air / Mists into water" and know "Both, with his breath, to be real" (Poems 338). Holding in his head

"Maine's bit speech, lithe laughter of Mobile blacks, / Opinions of salesmen, ripe tones of priests, / Plaints of the bought and sold," the poet wonders if he, like the caddisworm, can "rest and observe unfold" all the happenstance and spectacle of life--

> . . . watch and wait
> And praise
> The spirit and not the cause, and neatly precipitate
> What is not doctrine, what is not bound
> To enclosured ground; what stays? (Poems 340)

He longs to discover--"to neatly precipitate" the solute out of its watery solvent--the spiritual substance that cannot be contained in solidified doctrine and cannot be bound to holy ground but instead makes all ground holy. He seeks the numinous--what Otto called the real innermost core of religion. He longs for "what stays."

But he who lives between two worlds learns "[h]ow hid the trick is of justice." Like the adult caddis fly which cannot return to the water once it quits the larval form nor escape life on the surface of its mother element, the poet "cannot go home, nor can leave" (Poems 341). He can neither live entirely in the world of solid objects nor escape into the imagination or spirit; he lives on the edge, on the surface tension between the immanent and the transcendent, longing for both.

> But the dilemma, cherished, tyrannical,
> While he despairs and burns

Da capo da capo returns. (Poems 341)

Water-walking, skimming between two worlds, is a cherished dilemma because the waterwalker burns with not just despair, but with delight and desire as well. His longing teaches him that there is perhaps something to be longed for, something not bound to enclosured ground; his longing teaches him of the possiblity of something that is not *kept* but something that *stays*.

Wilbur recognizes, however, the danger in the spirit's pull between the immanent and the transcendent. He perceives that the "unquenchable ontological thirst" described by Eliade can become perverted, leading him away from the munificence of Being to the arid images of the mind, detached from this world. Wilbur describes in "Grasse: The Olive Trees" a South where "luxury's the common lot" and the soil around "rain-pocked rocks" is "rusty bright / From too much wealth of water" and "all is full / Of heat and juice and a heavy jammed excess." This "whole South swells / To a soft rigor" except for one element in the landscape: "Only the olive contradicts." The poet's eye "arrests / And rests from plenitude where olives lie / Like clouds of doubt . . ." (Poems 304). The sunlight which elsewhere lies "like yellow wool" is divested of "its color and its sway" by the olives:

> Not that the olive spurns the sun; its leaves
> Scatter and point to every part of the sky,
> Like famished fingers waving. Brilliance weaves
> And sombers down among them, and among

> The anxious silver branches, down to the dry
> And twisted trunk, by rooted hunger wrung.
> (Poems 304)

The poet says that "Even when seen from near, the olive shows / A hue of far away" (305). The olive is --

> . . . a tree which grows
> Unearthly pale, which ever dims and dries,
> And whose great thirst, exceeding all excess,
> Teaches the South it is not paradise. (Poems 305)

The poet sees in the olive a symbol of unquenchable human thirst. Like man, the olive "contradicts," exists in "clouds of doubt," and points and waves skyward with "famished fingers." The olive weaves brilliance among its "anxious" branches and is wrung "by rooted hunger." Like the human dissatisfaction with the immanent and longing for the transcendent, the olive's thirst exceeds all excess. Man and olive share an unslakable longing that keeps the South, the earth, from being paradise and that never finds this world's splendid excess to be enough. In his Confessions, Augustine refers to "men, who, for their punishment, are sick of a disease which makes them thirst for more than they can drink" 279). The "*Envoi*" of Wilbur's "Ballade for the Duke of Orleans" laments

> All men are born distraught,
> And will not for the world be satisfied.
> Whether we live in fact, or but in thought,
> *We die of thirst, here at the fountain-side.* (Poems 212)

In "'A World without Objects Is a Sensible Emptiness'" Wilbur pictures the soul as desert-wandering camels, "connoisseurs of thirst," who seek satiation in mirage rather than the water oases loud with the life of this world. The poem takes its title from a phrase in Centuries, meditations written by Thomas Traherne for a friend's instruction in the way to Christian felicity (Margolioth v-vi).[12] Traherne saw the whole world "as the Gift and Token" of God's love and believed that "nothing can please or serve Him more, than the Soul that enjoys [His gift]" (Traherne 6). Traherne called "Love . . . the true means by which the world is enjoyed" and "the root and foundation of nature . . . the Soul of Life . . . " (85). In Meditation 65 of the second series, Traherne wrote:

> You are prone to love as the sun is to shine . . . . The whole world ministers to you as the theatre of your Love. It sustains you and all objects that you may continue to love them. Without which it were better for you to have no being. Life without objects is a *sensible emptiness*, and that is a greater misery than Death or Nothing. (Traherne 86; emphasis added)

Thus, Traherne anticipated the sentiment expressed by agnostic Wallace Stevens, who three centuries later wrote in "Esthetique du Mal" that "The greatest poverty is not to live / In a physical world . . ." (Stevens 325). For both Stevens and Traherne, loss of the sensible world was a spiritual loss, but Traherne had a religious superstructure to explain the deprivation. For Traherne, to be cut off from the world of objects was to be cut off from the manifestation of

God's love and the opportunity to augment divine pleasure by enjoying God's gift.

In his poetic tribute to Traherne, Wilbur observes the "tall camels of the spirit" drawn toward the alluring mirage of "*sensible emptiness*." They pull away from the world of substance toward the world of image:

> The tall camels of the spirit
> Sheer for their deserts, passing the last groves aloud
> With the sawmill shrill of the locust, to the whole honey of the arid
> Sun. They are slow, proud,
>
> And move with a stilted stride
> To the land of sheer horizon, hunting Traherne's
> *Sensible emptiness*, there where the brain's lantern slide
> Revels in vast returns. (Poems 283)

The tall camels of spirit ignore the call of the world heard in the shrill of locust from the last oasis loud with life. They steer instead for their own parched images and the illusive honey of the arid sun--a dry imagination that would sustain itself on abstractions rather than on "the true, / The mortal flower." In a world of absence, of "sheer horizon," these proud spirits long to slake their thirst with the honey of their own delusions--repetitively changing lantern-slide images of their own making, images divorced from the mutable world.

The poet addresses directly these beasts of his soul, first warning them of the danger of choosing the aridity of thinking the world only what they see:

> O connoisseurs of thirst,
> Beasts of my soul who long to learn to drink
> Of pure mirage, those prosperous islands are accurst
> That shimmer on the brink
>
> Of absence . . . . (Poems 283)

He warns the tall camels of his spirit, these "connoisseurs of thirst," that the assuagement they crave can be found only in the forms of this world, not in abstract and substanceless fancies: " . . . auras, lustres, / And all shinings need to be shaped and borne" (Poems 283). Visions must be made of the stuff of this world. The poet reminds the camel spirits of those saints who wear their halos shaped and styled of this world's light :

> Think of those painted saints, capped by the early masters
> With bright, jauntily-worn
>
> Aureate plates, or even
> Merry-go round rings.

Fervently, the poet calls his soul beasts to the things of this world:

> . . . Turn, O turn
> From the fine sleights of the sand, from the long empty oven
> Where flames in flamings burn

> Back to the trees arrayed
> In bursts of glare, to the halo-dialing run
> Of the country creeks, and the hill's bracken tiaras made
> Gold in the sunken sun (Poems 283)

From deceptive mirages and flame fed on flame, the poet calls his attention and bids it see instead the trees and creeks and hills framed in this world's aureate light.

Then, in one word--"Wisely"--Wilbur connects the camels of his spirit to those camel-riding wanderers who, according to legend, searched two thousand years ago for something to worship. He tells his spirit camels:

> Wisely watch for the sight
> Of the supernova burgeoning over the barn,
> Lampshine blurred in the steam of beasts, the spirit's right
> Oasis, light incarnate. (Poems 284)

In the last two lines, Wilbur repeats Traherne's teaching of the way to felicity and reiterates his own insistence that "all shinings need to be shaped and borne"--i.e, spiritual rapture comes amid the things of this world like the epiphany that falls with the snow at the end of Joyce's "The Dead." Shinings must take on form to have being. The "honey of the arid / Sun" or the burgeoning supernova, must become "light incarnate," humbled to the steam of beasts and blurred into lampshine--the world of sensible objects, things to be loved and endured.

Wilbur affirms again the incarnate goodness of this world in terms of sunlight in his poem "Icarium Mare." The poem begins with a seeming acceptance of the traditional wisdom ("We have heard") that this Earth is a fallen, lesser world than some hyperion above. "Icarium Mare," the sea of Icarus, beomes a metaphor for "here," not the Platonic "True Earth above," but "our *sea-like* atmosphere" where "[w]e grope like muddled fish." The True Earth above is, by contrast, a place of "undimmed air" and "fierce lucidity." From that fierce lucidity, the poet suggests "Came Icarus' body tumbling." The Greeks expressed in the myth of Icarus their sense of overreaching human aspiration, the longing to fly beyond the bourne, to break with waxen wings the trammels of earth-bound limitations. Icarus became the symbol of the tragical failure of such aspirations--the beautiful boy, his wax wings melted by coming too near the sun, lost in the sea of his ambition: " . . . Icarus' body tumbling flayed and trenched / By waxen runnels, to be quenched" in the sea near Samos.

Yet, subtly, immediately, Wilbur contradicts the implied argument of the myth--that there exist rigid, preordained barriers set against the prying of human intellect and imagination. Without interupting the flow of Icarus' fall, Wilbur uses the sun, the island, and the sea of Samos to connect the youth of the Greek legend with two other denizens of the area who also flew very near the sun:

> Came Icarus' body tumbling, flayed and trenched
> By waxen runnels, to be quenched
> Near Samos riding in the actual sea,

> Where Aristarchus first
> Rounded the sun in thought; near Patmos, too,
> Where John's bejeweled inward view
> Descried an angel in the solar burst.
> (Poems 20)

Aristarchus of Samos, a Greek astronomer who lived in the third century B. C., is the first celestial observer recorded to have maintained that the Earth revolves around the Sun.[13] Thus, Icarus, the boy who flew too near the sun, is linked by the sea of Samos into which he fell to Aristarchus of the island of Samos, another Greek who "[r]ounded the sun in thought." Barren Patmos, a Greek island of the Duodecanese, lies south and slightly west of Samos; Patmos was, during Roman times, a place of exile. According to tradition, the disciple John, who wrote the Fourth Gospel and the Book of Revelation, was exiled to Patmos in 95 A.D. There he had his apocalyptic visons--" . . . Patmos . . . / Where John's bejeweled inward view / Descried an angel in the solar burst." Thus, Wilbur uses their mutual geographical connection to the sea near Samos and to the sun's "fierce lucidity" to link together these three explorers--Icarus, Aristarchus, and John. Heroic and perhaps foolhardy like the sky-challenging Icarus, Aristarchus and John, the "reckoner" and the saint, through "Insight and calculation brave / Black distances exorbitant to sense."

Though he celebrates the sky challengers, the poet does not disparage the humble, earthy vision "[w]hich in its little shed / Of broken light knows wonders all the same":

Where else do lifting wings proclaim
The advent of the fire-gapped thunderhead,

Which swells the streams to grind
What oak and olive grip their roots into,
Shading us as we name anew
Creatures without which vision would be blind?
(Poems 20)

The images of these lines--rising birds seeking shelter before a storm, lightning flashing from thunder-clouds, swollen streams gnawing at tree roots--connect to the mythic images of Icarus' flapping wings, celestial fire, and engulfing sea, thereby suggesting that the more "ordinary" world is made of the same elements as the imagined hyperion of the sky-challengers. The phrase "We name anew" suggests a recurrent Eden where we are forever engaged in Adam's task of naming the creation as we continually discover it. Having begun with the simple nouns naming sheep and goat and tree, we have moved on to mumeson and mitochondria and binary pulsars as our vision has grown more acute. The line "Creatures without which vision would be blind" reiterates the recurrent theme in Wilbur's poetry that says that the eye is not the prime composer and asks "What should we be without / The dolphin's arc, the dove's return, / These things in which we have seen ourselves and spoken?" (Poems 182-183). Vision comes not just with seeing but with seeing with an awareness that acknowledges that we ourselves are made by what we see.

The poet ends "Icarium Mare" with a humble affirmation of this Earth to place against the ideal of an undimmed "True Earth":

> This is no outer dark
> But a small province haunted by the good,
> Where something may be understood
> And where, within the sun's coronal arc,
>
> We keep our proper range,
> Aspiring, with this lesser globe of sight,
> To gather tokens of the light
> Not in the bullion, but in the loose change.
> (Poems 20-21)

Wilbur celebrates the winged-boy--a Pegaus-like symbol for art--as well as the saint and the scientist-reckoner whose insight and calculation challenge "[b]lack distances" that stretch out into the solar system and deep into the soul, but he also cherishes the shorter distances that are not "exorbitant to sense." The saint's "geodic skull" offers a "bejeweled inward view," but the "little shed" of the senses with its "broken light" knows wonders of its own. The "True Earth" is the one on which we stand; this is "[w]here something may be understood." Within the "proper range" of an earthbound but aspiring vision, the "lesser globe of sight" finds its treasures in the "loose change" of the sun's bullion--the coinage and the mutability.[14] For Wilbur, this earth is "no outer dark / But a small province haunted by the good." In this place of mystery, "something may be understood" *because* not everything is known.

Joy's Trick: "an ache / Nothing can satisfy"

Writing of the "greatest of spirit-nature pairs," Don Quixote and Sancho Panza, W. H. Auden in his essay "Balaam and His Ass" describes Sancho as a "'holy' realist" motivated to follow his master through insane adventures by his love of Quixote and by his "love of adventure, a poetic love of fun" (137). Auden defines a "holy realist" as one who "enjoys the actual and immediate for its own sake, not for any material satisfaction it provides" (137). Wilbur is such a holy realist. He is called to love the things of the world because they simply astonish him with their being; his experience of their otherness is joy. He delights in poetic fun and in repeating the act of creation with new creation. And, in spite of the world's supplying much evidence to the contrary, Wilbur has an abiding sense of a deep, unbounded good at the heart of creation:

> I feel that the universe is full of glorious energy, that the energy tends to take pattern and shape, and that the ultimate character of things is comely and good. . . . My feeling is that when you discover order and goodness in the world, it is not something you are imposing--it is something which is likely really to be there, whatever crumminess and evil and disorder there may also be. (qtd. in Stitt, High, and Ellison 190)

Many of Wilbur's poems celebrate the "glorious energy," pattern, and goodness he sees in the universe, and they struggle to balance "the claims of earth and heaven." Peter Harris calls Wilbur "first and last, a celebratory poet, most often of the transient epiphanic glories of

the natural world." Harris says whether the subject is natural or human, the "central value" of Wilbur's work is love ("Forty Years" 415).[15]

Heidegger said that poetry hails Being by disclosing the things of the world in which Being is concealed and that poetry "brings man onto the earth, making him belong to it" (PLT 218). None of Wilbur's poems does this better than "Love Calls Us to the Things of This World." Wilbur might have chosen the following precept from Traherne's Centuries as its epigraph: "Your enjoyment of the world is never right till every morning you awake in Heaven . . . as if you were among the angels" (14). In "Love Calls Us," the unwilling soul being pulled back to earth-bound vision by the waking body "shrinks / From all that it is about to remember, / From the punctual rape of every blessed day" (Poems 233). As the body's eyes open to the creak and squeal of clothesline pulleys, the "astounded soul," stunned with bewildered wonder, is "spirited from sleep"--abducted by returning consciousness from its ethereal, bodiless simplicity.[16] For the shimmering moment when the soul remains in one world but sucked toward another, it sees "Outside the open window / The morning air . . . all awash with angels":

> Some are in bed-sheets, some are in blouses,
> Some are in smocks: but truly there they are.
> Now they are rising together in calm swells
> Of halcyon feeling, filling whatever they wear
> With the deep joy of their impersonal breathing;

> Now they are flying in place, conveying
> The terrible speed of their omnipresence, moving
> And staying like white water; and now of a sudden
> They swoon down into so rapt a quiet
> That nobody seems to be there. (Poems 233)

In this wonderful moment of vision, the holy becomes visible in the mundane. Angels are as true as laundry. The peace and joy of heaven breathe in the calm swell that fills a bedsheet. Omnipresence manifests itself in laundry "flying in place," both moving and staying "like white water," and "rapt quiet" becomes evidence of things not seen.[17] Michelson says that "[t]he angels on the wash line are 'truly' there only to someone whose muddle-headedness has got the better of him," but then asks, "or is it that they *are* 'truly' there, in some dimension to which the waking mind cannot find its way?" (Wilbur's Poetry 51). Wilbur himself has said that "Love Calls Us" asks whether it is possible "to speak intelligibly of angels in the modern world" and if the psyche of the modern reader will consent to be called a soul ("On My Own Work" 126).

Spirited from sleep by the daily wakening, "the punctual rape" of returning consciousness when the alarm clock goes off or the neighbor's clothesline sounds, the soul pleads for an impossible simplicity. The cry of the pulleys that opens the poem becomes the cry of the soul:

> 'Oh, let there be nothing on earth but laundry,
> Nothing but rosy hands in the rising steam
> And clear dances done in the sight of heaven.' (Poems 233)

In the very images with which it pleads, the soul is overpowered and seduced by the body, by the things of this world that it has learned to love.

> Yet, as the sun acknowledges
> With a warm look the world's hunks and colors,
> The soul descends once more in bitter love
> To accept the waking body . . . . (Poems 233)

Wilbur has said that "Plato, St. Teresa, and the rest of us in our degree have known that it is painful to return to the cave, to the earth, to the quotidian: Augustine says that it is love that brings us back" ("On Love Calls Us" 18).[18]

As the man yawns and rises, the soul speaks "[i]n a changed voice" and offers a blessing for this world, a blessing spoken in terms of laundry:

> 'Bring them down from their ruddy gallows;
> Let there be clean linen for the backs of thieves;
> Let lovers go fresh and sweet to be undone,
> And the heaviest nuns walk in a pure floating
> Of dark habits,
> keeping their difficult balance.'
> (Poems 234)

Rather than leaving the laundry hung between worlds to do only "clear dances . . . in the sight of heaven," the embodied soul unhangs the angel wash and brings it down to earth to clothe with clean linen

and indiscriminate love the backs of thieves, lovers, and nuns. Done up in garments blown "fresh and sweet" by the rosy air of true dawn, the lovers will be "undone" in many ways--lovingly seduced and undressed by one another, loosed from the bounds of self in passionate surrender, made forever unfinished by perpetual becoming, and undone by death which will hang them out for the final drying. Wilbur leaves us with the image of "the heaviest nuns" walking "in a pure floating / Of dark habits, / keeping their difficult balance" between this world and the dreamed-of transcendent. These lines themselves display a dazzling equilibrium of paired contraries--heaviest/floating, pure/dark, pure floating/difficult balance. Wilbur has said that many of his poems are "arguments against a thingless, an earthless kind of imagination, or spirituality" (qtd. in Hutton 50). He specifically describes "Love Call Us to the Things of This World" as "a poem against abstracted and dissociated spirituality": "I can believe in angels by way of and in the laundry . . . I don't really want to have much truck with angels who aren't in the laundry, who aren't involved in the everyday world" (qtd. in Frank and Mitchell 25). For Wilbur, waking on earth is heaven and heavenly visions must be of this earth.

Michelson calls this poem "at once perfect seriousness and perfect festivity, its language-founded ironies being play much as Huizinga defines it in its highest state, play as the exuberant celebration of mystery." Michelson believes that "[t]he gaiety of the play heightens the reverence; it does not profane the ceremony." In

his rich language Wilbur displays "a grace which shows that he has reconciled the play of words with that spontaneity and excitement which sacred play, ceremony, ought to have." The critic concludes that in "Love Calls Us to the Things of This World "[t]he energy and music . . . are as well suited to holy festivity as their spreads of meaning are to the analytical mind" (Wilbur's Poetry 51).

How can one know if the vision is real--if there are really angels in the laundry? In "Teresa," a poetic tribute to Saint Teresa of Avila, Wilbur describes how the Spanish Carmelite came to know that vision heavenly in which "[t]he brighter angel and the spear . . . drew / A bridal cry from her open lips" (Poems 70). After the vision had come uncertainty:

> She could not prove it true,
> Nor think at first of any means to test
> By what she had been wedded or possessed. (Poems 79)

Teresa discovered that the test and proof of heavenly visions comes in this world:

> The proof came soon and plain:
> Visions were true which quickened her to run
> God's barefoot errands in the rocks of Spain
> Beneath its beating sun,
> And lock the O of ecstasy within
> The tempered consonants of discipline. (Poems 79)

For Wilbur, the holy exists in the objects and moments of the common day; holy things are "harder than nails" and "more warmly

constant than the sun." In "A Plain Song for Comadre" he asks questions that discover the extraordinary in the ordinary:

> What evening, when the slow and forced expense
> Of sweat is done
>
> Does not the dark come flooding the straight furrow
> Or filling the well-made bowl?
> What night will not the whole
> Sky with its clear studs and steady spheres
> Turn on a sound chimney? (Poems 244)

These questions imply that human beings can, through their labor, actually make vessels to hold the transcendent--the straight furrow and the well-made bowl contain the holy dark; the night sky of "clear studs and steady spheres" centers itself and turns around the axis of "a sound chimney." Holy things are of this world and are not frightened off "By a fly's buzz, or itches, or a cough" (Poems 244).

Wilbur sees the "unseen" in the daily labor of Bruna Sandoval, comadre, the domestic worker who tends the church of San Ysidro:

> It is seventeen years
> Come tomorrow
>
> That Bruna Sandoval has kept the church
> Of San Ysidro, sweeping
> And scrubbing the aisles, keeping
> The candlesticks and the plaster faces bright,
> And seen no visions but the thing done right
> From the clay porch
>
> To the white altar. (Poems 244)

Unlike Teresa's ecstasy, Bruna Sandoval's vision is always earth bound:

> For love and in all weathers
> This is what she has done.
> Sometimes the early sun
> Shines as she flings the scrubwater out, with a crash
> Of grimy rainbows, and the stained suds flash
> Like angel-feathers. (Poems 244)

The "unseen vanishes" and "insight fails" unless we are able to see "grimy rainbows" in the splash of scrubwater or the flash of angel feathers among stained suds. For Wilbur the holy image is not transfixed in *stained glass*; the evanescent holy flashes in the marvelous stain of the ordinary or expresses itself in the "green excellence" of a vine "dimly prompted" to upbraid itself by a warmly constant sun.

In a poem that in itself gorgeously affirms the beauty of sensible objects, Wilbur represents two versions of possible aesthetic and spiritual response to the human craving for something more, the unquenchable ontological thirst. In "A Baroque Wall-Fountain in the Villa Sciarra," he expresses the possibilities in terms of two Italian fountains of very different character: The first is the baroque wall-fountain in a park, the Villa Sciarra, in Rome. In verses of exquisite sensual imagery, Wilbur replicates the sight and sound of water and sunlight tumbling gorgeously over a faunal family at undisciplined

and delighting play. Following the flow of the water as it brims and flows and sprays, we discover the shape and figures of the fountain:

> Under the bronze crown
> Too big for the head of the stone cherub whose feet
> A serpent has begun to eat,
> Sweet water brims a cockle and braids down
>
> Past spattered mosses, breaks
> On the tipped edge of a second shell, and fills
> The massive third below. It spills
> In threads then from the scalloped rim, and makes
>
> A scrim or summery tent
> For a faun-menage and their familiar goose.
> Happy in all that ragged, loose
> Collapse of water, its effortless descent
>
> And flatteries of spray,
> The stocky god upholds the shell with ease,
> Watching, about his shaggy knees,
> The goatish innocence of his babes at play;
>
> His fauness all the while
> Leans forward, slightly, into a clambering mesh
> Of water-lights, her sparkling flesh
> In a saecular ecstasy, her blinded smile
>
> Bent on the sand floor
> Of the trefoil pool, where ripple-shadows come
> And go in swift reticulum,
> More addling to the eye than wine, and more
>
> Interminable to thought
> Than pleasure's calculus. (Poems 271-272)

Wilbur has said that his subject in this poem is pleasure and what place it has in life ("Explaining the Obvious" 143), and so, unsurprisingly, a nagging Puritan conscience interrupts the sensual frolic of light and water and fauns to ask about the validity of so much enjoyment: "Yet since this all / Is pleasure, flash, and waterfall, / Must it not be too simple?"

Immediately, the poet turns from the sensual to consider the spiritual and asks if another set of Roman fountains does not more accurately represent human nature and longing: "Are we not / more intricately expressed / In the plain fountains that Maderna set / Before St. Peter's . . . ?" (272). Turning from the simplicity of the baroque to the intricacy of the austere, Wilbur describes, in language that conveys struggle for transcendence, the alternative:

> . . . the main jet
> Struggling aloft until it seems at rest
>
> In the act of rising, until
> The very wish of water is reversed,
> That heaviness borne up to burst
> In a clear, high, cavorting head, to fill
>
> With blaze, and then in gauze
> Delays, in a gnatlike shimmering, in a fine
> Illumined version of itself, decline,
> And patter on the stones its own applause?
> (Poems 272)

If the Maderna fountains represent "what men are / Or should be," if these aspiring "water-saints" represent "[t]he pattern of our arete"

(virtue), Wilbur asks what to make then "of these showered fauns in their bizarre, / Spangled, and plunging house?" (272). He discovers that their virtue is "humble insatiety"--joy and unending delight in what is given rather than longing for something beyond, something not given:

> They are at rest in fulness of desire
> For what is given, they do not tire
> Of the smart of the sun, the pleasant water-douse
>
> And riddled pool below,
> Reproving our disgust and our ennui
> With humble insatiety. (Poems 272)

Cummins sees the conflict between saecular ecstasy and transcendence reconciled in the person of St. Francis: "Francis in his selfless love and piety, would have seen that the spirit embodied in St. Peter's fountain was really aspiring to the state expressed by the baroque fountain . . . . Francis would have seen in the baroque fountain the consummate joy for which imperfect man hungers" (29). Saint Francis, "who lay in sister snow / . . . / Freezing and praising" would see the frolic of fauns in a baroque wall-fountain as "No trifle, but a shade of bliss"--the shade of bliss of *this* world:

> That land of tolerable flowers, that state
>
> As near and far as grass
> Where eyes become the sunlight, and the hand
> Is worthy of water: the dreamt land
> Toward which all hungers leap, all pleasures pass.
> (Poems 273)

Eyes in joyful seeing add to the beauty of sunlight; the hand that takes pleasure in it is worthy of water. Earth is the land we dream of, where hungers grow on what they feed and pleasures can be found, and all is as near and far as grass. At the end of the poem "Hamlen Brook," Wilbur says that it is not dearth that makes thirst, but abundance:

> Joy's trick is to supply
> Dry lips with what can cool and slake,
> Leaving them dumbstruck also with an ache
> Nothing can satisfy. (Poems 41)

The Mystery of Things That Are

Perceptively, Wilbur notes that the baroque fountain offers a "*shade* of bliss." In a mutable world, sunlight comes with shadows. Wilbur's poem "Lot's Wife" counts the cost of loving this world of sensible objects. This translation of a poem by Anna Akhmatova recounts the Genesis story of Lot and his family following the angel out of the doomed city of Sodom. While the "just man" unswervingly follows his angel guide, a "wild grief in his wife's bosom" speaks to her and persuades the unhappy woman to--

> *Look back, it is not too late for a last sight*
>
> *Of the red towers of your native Sodom, the square*

Where once you sang, the garden you shall mourn,
And the tall house with empty windows where
You loved your husband and your babes were born.
(Poems 167)

The internal, italicized voice might be Satan whispering to a later Eve, tempting her with one last look at all she has known and loved. Indeed, according to the Biblical version Lot's wife was turned to a pillar of salt: when she looked back, the unhappy wife's "eyes were welded shut by mortal pain; / Into transparent salt her body grew," a pillar of her unshed tears. Akhmatova and Wilbur, pass judgment on her. First they ask: "Who would waste tears upon her? Is she not / The least of our losses, this unhappy wife?" Their answer to their questions express not disdain but deep sympathy and fellow-feeling for this woman who would die for one last look at the world she loved: "Yet in my heart she will not be forgot / Who, for a single glance, gave up her life" (Poems 167). Lot's wife's response seems most holy--an act of devotion in the sense described by the seventeenth-century theologian Malebranche, who said that " . . . rigorous attention is 'natural piety of the soul'" (qtd. in Steiner 156). Or her look back might be considered an act of prayer in the sense spoken of by Badeau in Grant at Windsor: "And what is prayer, after all, but paying perfect attention to something?" (Lefevre). Love called Lot's wife for one look back at the things of her world of Sodom; the pain of loss made her attention rigorous and perfect.

For Wilbur, the first act of reverence is to see the world in its incarnate holiness, and the second is to acknowledge the limits of

seeing. Repeatedly, throughout his poetry, Wilbur asks that his vision be corrected by humility. In "Poplar, Sycamore" from his first volume of verse, the poet asks Sycamore to save him from thinking that his vision defines the world, that the world is limited to what he sees:

> Sycamore, trawled by the tilt sun,
> Still scrawl your trunk with tattered lights, and keep
> The spotted toad upon your patchy bark,
> Baffle the sight to sleep,
> Be such a deep
> Rapids of lacing light and dark,
> My eye will never know the dry disease
> Of thinking things no more than what he sees.
> (Poems 381)

In "The Eye," published almost thirty years after "Poplar, Sycamore," Wilbur prays to Saint Lucy, the patron saint of eyesight, to renew the same blessing:

> Forbid my vision
> To take itself for a curious angel.
> Remind me that I am here in body
> A passenger, and rumpled.
> . . . . . .
>
> Correct my view
> That the far mountain is much diminished
> That the fovea[20] is prime composer,
> That the lid's closure frees me. (Poems 57)

The poet pleads that Saint Lucy preserve him from "*the eye's nonsense*" and asks that he "be touched / By the alien hands of love forever" so that his eye will not be "folly's loophole / But giver of due regard" (Poems 57). For Wilbur, " . . . the world's fullness is not made but found" (Poems 61).

In "Altitudes" Wilbur imagines Emily Dickinson climbing the spiral stair to the cupola of her father's house in Amherst. There, in a small room "furnished only with the sun," she sees "a wild shining of the pure unknown / On Amherst." Unlike Eiseley, Wilbur finds the world's mystery in the daylight ordinary, not in darkness and the lightning-lit surreal. For Wilbur the quotidian of nature is a book of revelation of things seen and things not seen; he says that "the imagination . . . when in best health neither slights the world of fact nor stops with it, but seeks the invisible through the visible" (Responses 159). In "Sunlight Is Imagination," Wilbur writes that in this world "[m]y hand / Can touch but mysteries, and each of a special shadow" (Poems 375). Giving "due regard" means uncovering "*the mystery of things that are*" (Poems 128; emphasis added). Seeing what is there means discovering *what is not there*--the mystery at the center of being. In "A Hole in the Floor," Wilbur asks, "For God's sake, what am I after?" and then answers--" . . . the buried strangeness / Which nourishes the known" (Poems 190).

Among the Walking to Sleep poems, Wilbur includes three translations of sonnets by Jorge Luis Borges. "Compass" contains lines which articulate the sense of a mysterious power, an unknown

force--what Heidegger called Being and Otto, the *mysterium tremendum*--behind creation. The undiscoverable, indifferent force "writes" in a baffling cipher all things that are:

> All things are words of some strange tongue, in thrall
> To Someone, Something, who both day and night
> Proceeds in endless gibberish to write
> The history of the world. (Poems 164)

"All things" of nature are part of a coded message from "Someone" or "Something." The words of that "dark scrawl" include Rome, Carthage, I, and you. The poet speaker's anguished life--"this my being which escapes me quite"--is itself part of the "cryptic, recondite, and garbled" message. Behind all that is visible and named lies the force that has no name but draws all things homeward to itself as the magnetic north draws the compass needle.

> Beyond the name there lies what has no name;
> Today I have felt its shadow stir the aim
> Of this blue needle, light and keen, whose sweep
>
> Homes to the utmost of the sea its love. . . .
> (Poems 164)

The compass, stirred by this vast, mysterious motive force, moves with a calm, unknowing, "Suggestive of a watch in dreams, or of / Some bird, perhaps, who shifts a bit in sleep" (164). Human beings also seem to have within them such a pointer, its keen blue edge trembling in search, lured by the magnetic north of Being, the

unknown behind the known. And that compass needle homing to the utmost of the sea makes travelers and seekers of us.

Mystery creates thirst, precipitates search. For Wilbur, all the world is a siren song luring him on to something yet unknown. In his poem "The Sirens," he writes that "I never knew the road / From which the world didn't call away" (Poems 301). Intense attention to the manifold beauties and mysteries of the world inevitably breeds regret for what cannot be seen or loved or known:

> Lands I have never seen
> And shall not see, loves I will not forget,
> All I have missed, or slighted, or forgone
> Call to me now. And weaken me. And yet
> I would not walk a road without a scene.
> I listen going on,
> The richer for regret. (Poems 301)

Paradoxically, what he cannot have adds to his riches with the promise that he can never exhaust this world's plenitude. In an interview, Wilbur said that he finds "a certain relish" in acknowledging that even in the very moment when he is tying up a poem's argument, "all the possibilities have not been exhausted" ("Mystery of Things" 145).

Wilbur values the mystery he finds in creation. The mystery at the heart of being adds zest and piquancy to life; it invites the imagination to complete or to make something of the things of the world. According to his "Advice from the Muse," the storyteller/poet should model art on reality by making sure to "have all be plain, but

only to a point." In any tale, " . . . something should escape us, something like / A question one had meant to ask the dead." The unknown has great value for the imagination; mystery may be as "Rich as our ignorance of the Celebes" (Poems 31)--full of titillation and possibility. Therefore, the Muse advises the writer:

> Of motives for some act, propose a few,
> Confessing that you can't yourself decide;
> Or interpose a witness to provide,
> Despite his inclination to be true,
> Some fadings of the signal, as it were,
> A breath which, drawing closer, may obscure
> Mirror or window with a token blur--
> That slight uncertainty which makes us sure.

What is completely understood loses its allure and can no longer hold the attention. Wilbur says that Wallace Stevens was right in asserting that "the imagination is happiest with 'the half color of quarter things'--with the completion of what is partial or partially apprehended" (qtd. in Dacey, "An Interview" 120-121). Mystery pulls the attention like a magnet. "Some fadings of the signal" or " a token blur" offer a place and work for the imagination. Mystery also creates the possibility for an adventure of faith--"That slight uncertainty that makes us sure."

Though mystery adds allure and excitement to life, it also creates intractable problems of knowing. Wilbur confronts Berkeley's epistemological assertion that "*esse est percipi*," to be is to be perceived, in his poem "A Chronic Condition." The poet shrouds

the world in fog to explore the philosopher's dicta that there is no material substance and that seemingly solid objects such as tables and stones are, in fact, collections of ideas or sensations which exist only in mind and only for as long as they are perceived.

> Berkeley did not forsee such misty weather,
> Nor centuries of light
> Intend so dim a day. Swaddled together
> In separateness, the trees
> Persist or not beyond the gray-white
> Palings of the air. Gone
> Are whatever wings bothered the lighted leaves
> When leaves there were. (Poems 275)

Asking, "Are all / The sparrows fallen?," Wilbur turns to the effects on the mind of the world lost in mist, actual and philosophic:

> I can hardly hear
> My memory of those bees
> Which only lately mesmerized the lawn.
> Now something blaze! A fear
> Swaddles me now that Hylas' tree will fall
> Where no eye lights and grieves,
> Will fall to nothing and without a sound.
>
> I sway and lean above the vanished ground.
> (Poems 275)

The poet's memory of the sound of bees fades when he can no longer see and hear them. He cannot sustain the concept of bee buzz without the presence of bees; the concept itself fades when the actual disappears. Idea seems to depend upon reality, not reality on idea.

In another twist on Berkeley, the poet, swaddled in fear as the trees are swaddled in mist, dreads that Hylas' tree will fall unseen, unheard, and unlamented.[21] Though the poet can think of the tree, his thought cannot make it present or pull it out of the real fog. His mind pleads for the blaze of something as he "sways and leans above the vanished ground": he loses his balance, mental and physical, when his eyes lose the world his mind cannot make. Yet, his swaying and leaning above what has vanished and his forgetfulness of bee buzz imply the very reality of these things outside his groping mind.[22]

In a set of epigrammatic couplets he calls "Epistemology," Wilbur exposes the questionable assurance of both materialist and idealist philosophies. The first couplet alludes to the story of how the wit and lexicographer Samuel Johnson refuted George Berkeley's concept of the nonexistence of matter, i.e., his belief that things exist only as the ideas or sensations in the mind of a perceiver. When Boswell observed that the Irish philosopher's assertions about the immateriality of matter were untrue but difficult to refute, Johnson challenged Berkeley's immaterialism with his own realism by kicking a stone and declaring "I refute it *thus*." Wilbur writes:

> Kick at the rock, Sam Johnson, break your bones:
> But cloudy, cloudy is the stuff of stones. (Poems 288)

Succinctly, Wilbur suggests how twentieth-century physics has subverted the concept of matter, finding that indeed all things, even

obdurate stones, are masses of swirling electron clouds. Mind has discovered solidity to be an illusion and stones to be cloudy swirl of energy particles. Yet, that cloudy stuff can indeed break bones.

In the second couplet, Wilbur illustrates the irony of idealist presumption:

> We milk the cow of the world, and as we do
> We whisper in her ear, 'You are not true.' (Poems 288)

This couplet exposes the terrible egocentrism of human beings who think the world exists because we see it or need it. Depending wholly on the world for sustenance, we insist that the cow which makes our existence possible exists only because we are milking it, that it has no true being outside our perceptions and needs.[23] In his "Epistemology" Wilbur recognizes the world to be far more mysterious than our ordinary concepts of the real and far more substantial than our ideas of it. Though it is the province of the poem--and philosophy and religion and science--"to make some order in the world," Wilbur writes that "poets can't afford to forget that there is a reality of things which survives all orders great and small. Things *are*. The cow is there. No poetry [nor philosophy nor religion nor science] can have any strength unless it continually bashes itself against the reality of things" ("The Bottles Become New, Too" 217).

In an interview, Wilbur described "The Beacon" as "all one metaphor," a poem "thinking about how much we can know of the

world, what the kingdom or province of human thought is" and doing that thinking "in terms of a lighthouse, and the sea, and the night" (qtd, in "Craft Interview" 94). He also said the poem contains "a lot of lesser but connected figures . . . mostly having to do with ideas of empire, province, kingdom, domain" (94). The beacon light of "The Beacon" symbolizes human imaginative perception--the faculty that not only sees the world but adds its creative shaping to the scene, imposing some pattern of coherence on what presents itself to view, some organizing fable on the dynamic flux which otherwise exists outside human control:

> Founded on rock and facing the night-fouled sea
> A beacon blinks at its own brilliance,
> Over and over with cutlass gaze
> Solving the Gordian waters,
>
> Making the sea-roads out, and the lounge of the weedy
> Meadows, flinging the blown hair
> As it always has, and the buxom, lavish
> Romp of the ocean-daughters. (Poems 249)

The beacon "solves" the Gordian waters with slashes of light--much the same way that Alexander the Great is said to have solved the Gordian knot. According to legend, an oracle had declared that the knot tied by King Gordius of Phrygia would be undone only by the future master of Asia. When Alexander could not untie the knot, he simply cut it with his sword--the kind of chutzpah that indeed made him the master of Asia (Dibbley 91-92). Facing the "night-fouled

sea," the imagination triumphs over the darkness; it lights the waters with myth--finding/making in the waves "sea-roads" and "weed-meadows" where "the ocean-daughters" engage in "buxom, lavish / Romp" (249).

But when the imagination blinks off, the world no longer coheres in myth or cartography: "Then in flashes of darkness it is all gone, / The flung arms and the hips, meads / And meridians, all" (249). When the mind cannot dominate the sea with an imposed mythic or cartographic order, the mind itself is dominated and terrified by the wholly and invincible other:

> . . . the dark of the eye
> Dives for the black pearl
>
> Of the sea-in-itself. Watching the blinded waves
> Compounding their eclipse, we hear their
> Booms, rumors and guttural sucks
> Warn of the pitchy whirl
>
> At the mind's end. (Poems 249)

Without the beacon's light, the eclipse of the "blinded waves" is "compounded"--intensified, accentuated, and magnified--by the warning, threatening, but unseen sounds out of their blackness--"Booms, rumors, and guttural sucks." The sounds of this line become the aural equivalent of Pascal's abyss and Poe's maelstrom, the terror that warns of "the pitchy whirl / At the mind's end." In the flash of darkness and the threat of sound, "All of the *sense* of the sea / Is veiled as voices nearly heard / In morning sleep" (emphasis added).

Without the imaginative light which finds or creates order, the sea makes no *sense*; it has no meaning for human beings even though its sounds and blackness are most acutely *sensed*. We cannot dominate it by myth or cartography; we can make no comforting tale of waking "[a]t the sea's heart."

Lost in the dark swirl without the power to encompass the sea imaginatively or solve its Gordian waters with "cutlass gaze," we are left with only the option of wail and weeping:

Rail

> At the deaf unbeatable sea, my soul, and weep
> Your Alexandrine tears . . . . (Poems 249)

Ironically and paradoxically, these lines which seem to suggest the only option left when the light of imagination fails to organize the world are themselves a powerful, evocative construction of form against chaos. The line "At the deaf unbeatable sea, my soul, and weep" is a twelve-syllable, five-stress Alexandrine. The first lines of each of the preceding stanzas are also Alexandrines or Alexandrine-like, having eleven, twelve, or thirteen syllables. According to Holman and Harmon, the twelve-syllable line may have gotten its name from its regular use in Old French romances describing the exploits of Alexander the Great, the conqueror tacitly alluded to in Wilbur's "Gordian waters" (10).[24] "Alexandrine tears" also recalls the story that Alexander the Great wept bitterly when he heard of his

father Phillip II's conquests because the son feared that there would be no worlds left for him to conquer.

At this point of despair with the soul weeping Alexandrine tears, the lighthouse beacon blinks again across the waters; the light-blaze like a sword cuts through the dark:

> . . . but look:
> The beacon-blaze unsheathing turns
> The face of darkness pale
>
> And now with one grand chop gives clearance to
> Our human visions, which assume
> The waves again, fresh and the same. (Poems 249)

The pitchy whirl pales with light; the sinister sounds of the sea fade when vision returns. The "one grand chop" lops the first lines of the last two stanzas down to ten-syllable pentameter--no more Alexandrine tears. However, the vision that light makes possible contains a hint of qualification:

> Let us suppose that we
>
> See most of darkness by our plainest light.
> It is the Nereid's kick endears
> The tossing spray; a sighted ship
> Assembles all the sea. (Poems 250)

It is a consolation--but perhaps not a truth--to suppose that we "See most of darkness by our plainest light." Wallace Steven addresses

the problem of seeing things "as they are" in his short play "Bowl, Cat and Broomstick":

> Bowl: What an extraordinary effect one gets from seeing things as they are, that is to say: from looking at ordinary things intensely.
>
> Broomstick: But to look at ordinary things intensely is not to see things as they are. However, go on. (Selected Poems 30)

To look at things intensely, by our "plainest light," is to add imagination to reality. The imagination manages "[t]he deaf unbeatable sea" when seaspray can be made into playful nymphs or the ocean can be organized around a human artifact--in the same that way a jar placed on a hill in Tennessee takes dominion, making "[t]he wilderness . . . / . . . no longer wild" (Stevens 46).[25] This aesthetic taming of wild indifference diverts the mind's eye from "the black pearl / Of the sea-in-itself" which the mind cannot know and also from the "[b]ooms, rumors, and guttural sucks" that "[w]arn of the pitchy whirl at the mind's end." But when the light fails, the blackness becomes all the more intense, suggesting that the world as managed by the imagination is not the *real* world at all--or not the *only* real world. In a sense, we do indeed discover darkness with the mind's light.

Hearing in the darkness the sound of the "pitchy whirl at the mind's end," we discover terror at the center of mystery. Wilbur writes in "The Waters" that " . . . only the dull are safe, only the dead

/ Are safe from the limitless swell and bitter seethe" of the sea, and, therefore, even "the damnedest lovers of water dread the waves." A recurring image in Wilbur's poems is that of a whirlpool or whirling mass of energy--a sucking, pulling dark center that is terrifying yet painfully attractive and alluring. Not only does it draw things toward its center with centripetal spin, but the force of the centrifugal whirl flings loose floaters away to gather or coalesce at the edges of its swirling energy.

In "Marginalia" the swirling force of the central vortex causes life to accrete at the periphery of its whirl: "Things concentrate at the edges" and "Our riches are centrifugal"; " . . . the pond-surface / Is bourne to fish and man." *Bourne* means both the domain and a limit or boundary. The pond-surface is the limit to the fish's water world and the boundary of man's air world, but the concepts of limits or boundaries and of domain necessarily imply that something exists beyond the imposed barriers. At the edges, the place where two worlds interface, things happen. On the pond-surface, the interface between air and water, the detritus of both worlds accumulate. The surface is "spread / In textile scum and damask light, on which/ The lily-pads are set," and is inlaid with a beautiful mosaic of cast-offs--"ruddy twigs, becalmed pine needles, / Air-baubles, and the chain mail of froth" (Poems 266).

In a similar way the margins of consciousness collect the cast-off images of separate worlds that seem to touch at its edges.

> Descending into sleep (as when the night-lift
> Falls past a brilliant floor), we glimpse a sublime
> Decor and hear, perhaps, a complete music,
> But this evades us . . . . (Poems 266)

This "complete music" faintly heard continually evades us just as the crickets' song pursued across a meadow silences as we approach it but continues alluringly in the distance: "The crickets' million roundsong dies away / From all advances, rising in every distance." Wilbur speculates that we ourselves sing the siren songs we pursue, that we create the mystery that evades us:

> Our riches are centrifugal; men compose
> Daily unwittingly, their final dreams,
> And those are our own voices whose remote
> Consummate chorus rides on the whirlpool's rim,
> Past which we flog our sails, toward which we drift,
> Plying our trades, in hopes of a good drowning.
> (Poems 266)

The song we pursue is the one we sing, the one that allures us to the whirlpool's rim, the swirling vortex that leads to some dark, mysterious center. Daily but unknowingly, we compose the siren song that will lead us inevitably to the maelstrom. The words "toward which we drift" (despite flogging our sails) and "in hopes of a good drowning" imply that the drowning is inevitable; the hope is not to escape but to draw out the time and attention "on the whirlpool's rim" and make a good job of the final plunge. The central pull may be terrifying and, finally, overpowering, sucking all into its dark,

annihilating center, but the vortex is also immensely creative, its whirl causing things to "concentrate at the edges" and making "[o]ur riches . . . centrifugal."

Love and Dread

In Wilbur's poetry, the female frequently becomes an embodiment of the universal mystery, something longed for but never understood. She is also the "dear attachment" whose loss is inevitable and feared. In "She," the poet asks of the Eve-figure, "What was her beauty in our first estate / When Adam's will was whole . . . ?" (Poems 193). He cannot answer this question because in the Eden before the Fall, no metaphors, no likenings were possible--"Resemblance had to wait / For separation . . . ." Eve was one with the elements: "She so partook of water, light, and trees / As not to look like any one of these" (193). In this poem, Wilbur buries the central drama and great upheaval of the Eden myth, unmentioned, in the white space between the last line of the second stanza and the first line of the third:

> He woke and gazed into her naked face.
>
> But then she changed . . . . (Poems 193)

In that space, unspoken, lies the temptation, the Fall, and the curse. The Fall brings with it the paradox of separation and resemblance.

When "[s]he partook of water, light, and trees," Eve could not be compared to these; undifferentiated unity dissolved likeness. Comparison, finding the likeness, had to wait for the separateness of a fallen world.

> But then she changed, and coming down amid
> The flocks of Abel and the fields of Cain,
> Clothed in their wish, her Eden graces hid,
> A shape of plenty with a mop of grain,
>
> She broke upon the world, in time took on
> The look of every labor and its fruits. (Poems 193)

"[I]n time," both *over* time and *in* time rather than in an Edenic eternity, Eve "broke upon the world"-- i.e, she suddenly dawned upon the world, was suddenly seen as something other than water, light, and trees. She also "broke upon the world" in the sense of being shattered against the hard substance of the world into many seemings.

Taking on the "look of every labor and its fruits," She became symbol and metaphor, the emblem of something lost and something sought, something to be worshipped and something to be possessed like a trophy:

> Columnar in a robe of pleated lawn
> She cupped her patient hand for attributes,
>
> Was radiant captive of the farthest tower
> And shed her honor on the fields of war,
> Walked in her garden at the evening hour,

Her shadow like a dark ogival door,

Breasted the seas for all the westward ships
And, come to virgin country, changed again--
A moonlike being truest in eclipse,
And subject goddess of the dreams of men.
(Poems 193)

Her shadow cast in the voluptuous curves of "a dark ogival door," She becomes alluring and elusive, tantalizing and terrifying.[26] She who in Eden could not be named or likened, who could barely be discerned from water, light, and air, becomes "More named and nameless than the morning star, / Lovely in every shape, in all unseen." The poet concludes that "We dare not wish to find you as you are." She is no longer just Eve, first woman, wife, and mother; She represents all that is wholly other--woman, nature, muse, the divine. The phantom She, the She concocted in men's minds, is so powerful, the reality might have the force of a terribly beautiful Medusa. "[B]iding time until / Desire decay and bring the latter age," the apparition of She "Shall flourish in the ruins of our will / And deck the broken stones like saxifrage" (Poems 194). These last lines refer back to the first--"What was her beauty . . . / When Adam's will was whole." Now her beauty is to "flourish in the ruins of our will." *Saxifrage*, also called "breakstone," comes from Latin roots which literally mean "rock-breaking herb." Like the tiny-blossomed saxifrage that grows in rocky crevices, She decorates the shambles She has made. The fallen world is made beautiful by this mysterious, elusive, alluring force that provokes creative response.

Trying to master the phantom, men embody the mystery in She as earth mother, towered prize, siren, ship's figurehead, or the "subject goddess of the dreams of men."[27]

Often in Wilbur's love poems, an ominous sense of dread shadows the joy of loving. "Someone Talking to Himself" begins and ends with a face. The face which opens the poem is "her face"--"Younger than any spring / Older than Pharaoh's grain / And fresh as Phoenix ashes" (Poems 208). These brief lines of description of *she* who remains as anonymous as the *he*, the "someone" who is talking to himself, convey implicitly the passage of time (spring, the autumn harvest of "Pharaoh's grain") and death and resurrection in "fresh as Phoenix -ashes." The speaker has known "her" from her beginning and, in a flash of pain, had recognized "even when first her face / . . . . / Shadowed under its lashes / Every earthly thing" that "There was another place":

> Off in the fathomless dark
> Beyond the verge of love
> I saw blind fishes move,
> And under a stone shelf
> Rode the recusant shark--
> Cold, waiting, himself.
> (Poems 208)

The shadow of the woman's glance with which she takes in all of creation widens and deepens into the "fathomless dark" where fish, blind as love, move. Among them, "cold, waiting, himself," is the "recusant shark"--threatening, merciless, intent on his sinister

purpose. Historically *recusant* referred to anyone, especially a Roman Catholic, who refused to attend services of the Church of England (OED). In current usage, *recusant* refers to anyone refusing to submit to authority. The shark is the reptilian Satan of Eden evolved to elasmobranch fish; the modifiers and intensive "cold, waiting, himself" suggest the common perception of the shark as voracious, rapacious, and dangerous to man.

The blind fish and the shark wait "in the fathomless dark / Beyond the verge of love." Verge (a favorite word for Wilbur) has the sense both of a point marking the beginning of a new state or condition or action and also of a brink or threshold or precipice. Love is a beginning on the edge of a precipice. The two--he and she--fall both into love and from "the verge of love" like a mountain cataract:

> . . . we fell
> Clean as a mountain source
> And barely able to tell
> Such ecstasy from grace
> (Poems 208)

Paradoxically, the two fall "clean," and the fall into love leaves them in a ecstasy that can be barely discerned from grace. Like a mountain torrent, he and she fall "Into the primal bed / And current of our race." The speaker who is talking to himself admits that "even when we fell / . . . . / We knew yet must deny / To what we gathered head." What follows is a description of the loving fall,

roaring confluence, and eventual attrition of a stream that began as a clear, full mountain source:

> That music growing harsh,
> Trees blotting the sky
> Above the roaring course
> That in the summer's drought
> Slowly would peter out
> Into a dry marsh. (Poems 208)

Harshness, roaring, and then drying from a trickle into nothingness; the pair knew they were falling into mortality and inevitable attentuation and loss.

Despite the consequences--perhaps because of them--the speaker declares that "Love is the greatest mercy." Reprising the words and the imagery of the first verse, the speaker describes love, this "greatest mercy," as " volley of the sun / That lashes all with shade, / That the first day be mended." The lines echo, but with a difference, the diction of the first stanza, ". . . when first her face, / . . . / Shadowed under its lashes / Every earthly thing." The word lashes takes on the power of all its meanings. The lashes of her eyes seduce and hold all they look upon. The sunlight lashes all with shade--binding and lacing all together with the shadow that inevitably comes with light but also lashing everything with a whip-like sting. Love comes as a "volley"--a flight of missiles or a burst of many things at once. All life is bound by the shadow of death, and love, "the greatest mercy," is also the "lover's curse" because all that

is loved is "so soon undone." Love will be curse as well as mercy "till time be comprehended / And the flawed heart unmade" (Poems 209). The "Someone Talking" asks rhetorically:

> What can I do but move
> From folly to defeat,
> And call that sorrow sweet
> That teaches us to see
> The final face of love
> In what we cannot be?
> (Poems 209)

And what is it that "we cannot be"--immortal, perfect, safe? How does Wilbur manage to see the "final face of love" in such an imperfect and mutable world? Perhaps only in such a world is love possible, and perhaps only such a world can hold the attention of Lot's wife and all those who cannot help but look back at what they are losing.

In his discussion of Poetry and the Sacred, Buckley says that religious poetry in the twentieth century observes "the religious world . . . in its secular seeming" and that "the loves of 'the natural man' are inescapably the matrix for a sense of 'the blessed'" (52). Wilbur's poem "In the Field" expresses the terror faced by two people who love one another who unexpectedly confront not a swirling vortex but the vastitude of the universes above their heads and around their knees. These two, the animated ash of burned out stars evolved to consciousness, try to organize through myth or science or poetry the terrifying otherness of spatial infinity. They

discover, however, that only one thing they know can compare to the "nip of fear" that bites when the mind confronts the abyssal universe and all their attempts at dominion fail.

"In the Field" opens with the poet's next-day, daylight reassessment of the star-gazing walk taken the night before. He and his beloved companion (presumably his wife--he refers to "our bedlamp") repeat the same walk in the sunlit present of the poem, and she is the silent partner of meditations on the nature of things. The poet remembers that--

> This field-grass brushed our legs
> Last night, when out we stumbled looking up,
> Wading as through the cloudy dregs,
> Of a wide sparkling cup,
>
> Our thrown back heads aswim
> In the grand, kept appointments of the air,
> Save where a pine at the sky's rim
> Took something from the Bear. (Poems 131)

The mention of the constellation *Ursa Major* introduces the attempt to organize the universe mythologically. With casual ease the poet associates star clusters with the stories generations of human beings have told about them:

> Black in her glinting chains,
> Andromeda feared nothing from the seas,
> Preserved by no hero's pains,
> Or hushed Euripides',

And there the dolphin glowed,
Still flailing through a diamond froth of stars,
Flawless as when Arion rode
One of its avatars. (131)

The constellations mentioned bear the names of mythological figures who suffered great terrors. The beautiful young maiden Andromeda was chained to rocks by the sea to await being devoured by a sea serpent. According to Greek myth, an oracle had prophesied that only her sacrifice would save her people from being consumed by the monster. Perseus, the heroic slayer of Medusa, rescued Andromeda and killed the monster (Hamilton 146-48). Held in the night sky by chains of stars, Andromeda no longer fears the sea nor waits for Perseus--or Euripides--to save her. In a note Wilbur explains that the Greek tragedian supposedly retold the story of Andromeda in a play. However, Euripides is twice dead, his voice "hushed" because no manuscript of his Andromeda survives. The other constellation mentioned, that of Arion, recalls the legend of the ancient Greek poet who was threatened by sailors who intended to rob him of a recently won prize and then throw him overboard. Arion asked that before dying he be allowed to sing and play his lyre one last time. After doing so, the poet/singer leaped into the sea, only to be saved by dolphins who had appeared enchanted by his music (Hamilton 289).

Having just rehung Andromeda "[b]lack in her glinting chains," and set the dolphin again "flailing through a diamond froth of stars," Wilbur abruptly blows apart his creation by asserting that "none of

that was true." The constellations no longer offer the surety of grand appointments kept. Over several millennia, they too have come apart:

> What shapes that Greece or Babylon discerned
> Had time not slowly drawn askew
> Or like a cat's cradle turned? (Poems 131)

The ancient Egyptians' north, their polestar, had been in the constellation of the Dragon's tail, but "[t]he heavens jumped away / Bursting the cincture of the zodiac" and now the North Star is Polaris in the constellation *Ursa Minor* (White 131). As the earth's rotational axis changes its direction over 26,000-year cycles, the star that we name North Star changes; twelve thousand years from now, the earth's northern axis will point to a spot near Vega in the constellation Lyra and another ten thousand years after that, Thuban in the constellation Draco will become the North Star (White 401). Unless the stars, like dice, can be "gathered for another cast," the old star patterns change, and ancient myths lose the form that once preserved them in the night sky. Not only do the stars themselves change positions over many years but the earth's yearly revolution about the sun changes the portion of the sky visible at night. The sky changes in the way the symmetrical string patterns constantly change in the child's game of cat's cradle as the string cradle is transferred from hand to hand. "As if a form of type should fall / And dash itself like hail," the heavens had broken their bounds and

"jumped away." The myths faded in sky and in memory, and the poet's words were lost. John Gery in "The Sensible Emptiness in Three Poems by Richard Wilbur" writes that in the image of the spilled type "[t]he idea of language as our hold or access to experience . . . falls away" and "[a]ll schemes are broken, or at least breakable" just as the heavens burst out of the zodiac our imaginations had imposed on them (120).

Lost in the uncertainty of fading myth and fleeing galaxies, the two companions wandering in a field beneath the night sky then sought the consolation of certainty to be found in fact, in science. Of whether the errant stars could be reassembled into the old figures--

> We could not say, but trued
> Our talk to words of the real sky,
> Chatting of class or magnitude,
> Star-clusters, nebulae,
>
> And how Antares, huge
> As Mars' big roundhouse swing, and more, was fled
> As in some rimless centrifuge
> Into a blink of red. (Poems 132)

The verb "trued" connects by seeming contrast this section on science with the earlier musings on the mythology of the heavens, about which the poet had to conclude "But none of that was true." What follows makes the use of "trued" truly ironic. The poet remembers that his and his companion's attention got snagged on "[t]he schoolbook thoughts we thought," and the comfort they had sought in

facts succumbed to "the nip of fear" when their imaginations actually got caught on "[t]he *feel* of what we said" (Poems 132; emphasis added). A giant red star of the first magnitude of brightness, Antares is the largest star (330 times larger than the sun) in the part of the universe that contains our solar system; however, red giants are dying stars expanding to a crimson glow in the process of their self-annihilation. As the couple observed Antares fled to the horizon of the universe "[a]s in some rimless centrifuge," their imaginations shivered at the vastness of the universe and the power of creation to explode itself. With the passage of time, myth could not hold the constellations together, and science can only try to measure the speed at which the galaxies fly apart.

Stunned by the incredible vastitude of space and terrified by the "feel" of the facts of the universe, the companions were led to imagine ("faked") "a scan of space / Blown black and hollow" (132). If all is flux and change and a great star can seem to fly off to the world's rim, anything, everything, can be lost. Fearfully the "spent grenade" of imagination conceives the possibility of "All worlds dashed out without a trace, / The very light unmade" (132). The verb "dashed" echos the form of type which dashed itself like hail when the zodiac ruptured. With such troubled thoughts, the field walkers turn "in the late-night chill" and pick their way over stone outcrop under "faint starlight" toward the human comfort "where our bed-lamp shone." Jensen says that in this poem Wilbur shows us "the struggle of a man who knows too much, whose learning and wit

conspire to multiply both nature's horrors and its wonders." Jensen also points out that Wilbur's expression of his apocalyptic vision in regular meter (as in "without a trace / The very light unmade"), carefully patterned quatrains, and sophisticated allusion suggests that chaos is kept at bay "only through a great effort of intellect and will." "The minor things are under control. Beyond us, and testing us always, is a world that baffles our perceptions: 'we remain / On the shore of what we know.'" (Jensen 249-250).

In the fourteenth stanza and after, the verbs become present tense; the speaker no longer talks of recollection, and the time is "Today in the same field" where the night before "[t]his field grass brushed our legs" (131-132). The universe "[b]lown black and hollow" the night before is patched and papered over with sunlight:

> The sun takes all, and what could lie beyond?
> Those holes in heaven have been sealed
> Like rain-drills in a pond. (Poems 132)

"We," the same two, are now "beheld in gold" and "[s]ee nothing starry but these galaxies / Of flowers, dense and manifold, / Which lift about our knees" (Poems 133). The poet watches as his beloved "sinks down" to pick an armload from the "[w]hite daisy-drifts." The diction the poet uses to describe the scene of his beloved among the wild flowers conveys both splendor in the grass and mutability.[28] They walk in a field of--

> White daisy-drifts where you

Sink down to pick an armload as we pass,
Sighting the heal-all's minor blue
In chasms of the grass,

And strew of hawkweed where,
Amongst the reds or yellows as they burn,
A few dead polls commit to air
The seeds of their return. (Poems 133)

The daisies drift like snow in winter. The poet watches his beloved "*Sink down* . . . as we *pass*," and "chasms of grass" make grave threats (emphasis added). Strewn as over a casket, the reds and yellows of hawkweed "burn," and the "few dead polls commit to air / The seeds of their return." Dried seed pods signal death for one generation if they promise life for another. The sounds of *memento mori* continue in "the heal-all's *minor* blue": The plant's name is itself a therapeutic lie but an aesthetic truth; its blue is "minor"--both small and sad-toned. No American poet, and certainly not Wilbur for whom Robert Frost was both mentor and friend, can mention the heal-all without conjuring up Frost's bitter, terrifying "Design" in which the anomalous white heal-all becomes with moth and spider an unholy trinity that makes the God of a divine plan either malicious or slipshod or untenable.

The ominous diction of the verses describing the field of wild flowers subverts the assumed assurance of the rhetorical question asked in the golden dayshine of stanza fourteen: "Today, in the same field, / The sun takes all, and what could lie beyond?" (132). The sense of mutability in the verses that follow suggests that what lies

beyond daylight is the return of darkness and the black, hollowed night sky peppered with fading, fleeing stars. Of the field of daisy and hawkweed and heal-all, the poet warns--

> We could no doubt mistake
> These flowers for some answer to that fright
> We felt for all creation's sake
> In our dark talk last night. (Poems 133)

Wilbur offers no flowery consolation for the sky evidence--in myth and in science--of star-worlds rushing toward the edge of our knowledge and over into oblivion. The flower galaxies cannot ressolve the terror of the night sky because they themselves are also stars adrift in a mutable world.

Only one force can match the power of fear when the imagination gets caught not just by fact and myth but by the *feel* of what it knows and is made to stare into Pascal's abyss:

> Taking to heart what came
> Of the heart's wish for life, which, staking here
> In the least field an endless claim,
> Beats on from sphere to sphere
>
> And pounds beyond the sun,
> Where nothing less peremptory can go,
> And is ourselves, and is the one
> Unbounded thing we know. (Poems 133)

In his notes to this poem, Wilbur cites a source for his idea of boundlessness; he quotes from A New Catechism: "' . . . beyond the

limits we know, there is something boundless for our hearts'" (qtd. in Poems 177). In his sunlit meditation on the previous night's terror, the poet uncovers "something boundless for our hearts":

> . . . the heart's wish for life
> . . . . . .
> . . . is ourselves, and is the one
> Unbounded thing we know.
> (Poems 133)

Anchored on earth in a field of daisy-drifts, the heart's wish for life "pounds beyond the sun," and, like Antares, it glows with brightness of the first magnitude. What the poet has discovered is not assuagement for the "nip of fear" but its source. Desperately we hope that our unbounded longing implies that there is indeed "something boundless for our hearts." Jensen says that what "In the Field" finally asserts is "the heroism of being human, the heroism of facing up to the inadequacy of the answers we can discover with all our powers of thought and imagination" ("Encounters with Experience" 249).

For Wilbur, love and death are the greatest mysteries, and he celebrates life in the presence of its shadow. The speaker of the poem "Sunlight Is Imagination" comes to see shadows as a manifestation of sunlight and to choose to love in the teeth of death. As in "In the Field," the poet and his beloved are in a meadow; the speaker addresses the woman who is caught in a play of light and shadow:

> Each shift you make in the sunlight somewhere
> Cleaves you away into dark. Now
> You are clarion hair, bright brow,
> Lightcaped shoulder and armside here and there
> Gone into meadow shadow. (Poems 374)

The woman, mermaid-like, becomes a creature of two elements; the light which makes her bright also creates, where it is obstructed, the shadow which cleaves her away into darkness. The poet asks, "Where / Are my eyes to run?" What is he to make of her? Shall he say simply and truly that "you are fair / In the sun"? Or shall he make of her a symbol or fiction, something more than a woman dazzling in sunlight and partially hidden in shade: "Shall I . . . . mermaid you in the grass waving away?" (374). The speaker is torn between the real and the image that will preserve the real.

The imagery of mermaid and grass waving leads into the second stanza where the poet/lover compares himself to Juan Ponce de Leon, who "climbing to light / On a morning of the Feast of the Resurrection," saw from "the ocean shelf" the allure of Florida: The sunlight shining on the land left the shaded interior dim and mysterious, a place that might hold the longed for fountain:

> . . . parrots prophesied;
> Vines ciphered; to each waterside
> Paths pitched in hopes to the fair and noble well
> Of sweetest savor and reflaire
> Whose ghostly taste
> And cleanse repair

All waste,
And where was ageless power from the first.
(Poems 374)

Seeing his beloved bright in the sunlight and then lost in the shadow makes the poet aware of the omnipresent mortality that could cleave her away in some final darkness. This unspoken anxiety leads his thoughts to the Spanish explorer who sought the Fountain of Youth in sunny Florida. On the Feast of the Resurrection, Juan Ponce reached the land where he hoped to find the "fair and noble well" whose sweet smell and savor and "ghostly taste" would repair the wastes of time, an "ageless power," both ancient and rejuvenating.

But the poet is not seduced by his own longing or the promise of eternal and unchanging youth and beauty. He recognizes that trying to make time-bound things last destroys them.

Yet thirst
Makes deserts, barrens to a sign
Deckled and delicate arbors, bleeds
The rose, parches the prodigal seeds
That spring toward time in air, and breaks the spine
Of the rock. No; I shall resign
That power, and crave
Kindly to pine
And to save
The sprout and the ponderation of the land.
(Poems 375)

The poet recognizes the paradox that things must die in order to live. As Donald Hill observes, "yearning for the eternal wastes the temporary" (35). The poet gives up the power to make time stand

still and craves instead to save not only the sprout--the new growth that shoots from a branch or root or stump, an emblem of life--but also the "ponderation of the land"--the weight or gravitation that pulls all things down, draws all things back to the earth.

The poet knows that he is in love with dying things:

> My hand
> Can touch but mysteries, and each
> Of a special shadow. I shall spare
> The larch its shattering ghost, the pear
> Its dark awaiter too, for shades beseech
> Originals: they running reach
> On windy days
> To touch, to teach
> What stays
> Is changed, and shadows die into dying things.
> (Poems 375)

"Spare" means "spare to," not "spare from." The "shattering ghost," the shadow of the larch, and the "dark awaiter," the shadow of the pear, are among the special shades which "beseech / Originals." These shadow ghosts manifest the essential nature of their originals; the originals cannot exist without them. That which is ephemeral is created by its temporality; it cannot become part of eternity and maintain its uniqueness, part of which is the continual capacity to change. The dancing shadows of the larch and the pear teach that "What stays / Is changed."[29]

In the last stanza, the poet reaffirms his judgment that life is worth dying for and that love is worth suffering:

Now swings
The sky to noon, and mysteries run
To cover; let our love not blight
The various world, but trust the flight
Of love that falls again where it begun.
All creatures are, and are undone.
Then lose them, lose
With love each one,
And choose
To welcome love in the lively wasting sun.
(Poems 375)

The paradox of the "lively wasting sun" and the tone of the last stanza are reminsicent of Wallace Stevens' "Sunday Morning" in which "Death is the mother of beauty" and in which "We live in an old chaos of the sun, / Or old dependency of day and night" (Palm 7-8). On "our perishing earth," men who chant "on a summer morn / Their boisterous devotion to the sun" shall "know well the heavenly fellowship / Of men that perish and of summer morn" (7-8). Trusting "the flight / Of love that falls again where it begun" is like watching "casual flocks of pigeons make / Ambiguous undulations as they sink, / Downward to darkness on extended wings" (Palm 8). Both poets find "comforts of the sun / . . . / In any balm or beauty of the earth, / Things to be cherished like the thought of heaven."

All love comes at the price of inevitable pain and loss. In "For Dudley," his elegy for his friend Dudley Fitts, Wilbur writes of visiting his friend's home just after Fitts' death: "Even when death has taken / An exceptional man, / It is common things which touch us . . . ." He is moved when he finds lying on his friend's desk "[t]he half of a sentence / Not to be finished by us, who lack / His gaiety,

his Greek." The never-to-be-finished sentence epitomizes the irrevocable, unique loss. As Wilbur watches, the "quick sun" picks out of the shadows "a chair, a vase of flowers." He recognizes the sunlight as "the light of which / Achilles spoke, Himself a shadow then, recalling / The splendor of mere being" (Poems 135).[30] The intense "splendor of mere being" is matched and balanced by the exquisite sense of pure loss as the mourners, "[a] small knot of island folk, / The Light-Dwellers" pour "[a] life to the dark sea."

Wilbur's poem "Lament" opens with an allusion to Thomas Nashe's poem "A Litany in Time of Plague," which contains the line, "Queens have died young and fair" (Nashe 666). Wilbur begins his "Lament" with "Nashe's old queens who bartered young and fair / Their light tiaras for such ponderous stones"--the "ponderous stones" being tombstones. Observing the mutable world, Wilbur declares that "Kept spirit is corporate." Spirit is "kept" only through incorporation; body is the form and matter of spirit. The word *corporate*, derived from the Latin past participle of *corporare* meaning "to make into a body," is haunted by another derivative from the Latin root *corpus*--*corpse*. "Kept spirit" incorporated into flesh cannot be *kept*:

> Water and air: such unclenched stuff can last,
> But rarest things are visible and firm. (Poems 324).

Wilbur puns on the word *rarest*. The rarest things are the most excellent and distinctive, the most uncommon, the most extreme; but

rarest also describes gases--"unclenched stuff" like air--which have their atoms or molecules most widely separated. For Wilbur, the "rarest things" are paradoxically "visible and firm," the solid stuff that cannot last. One of these rarest things, beauty, a *sublime* abstraction, can be known only through material manifestations. Beauty exists in the beautiful; therefore, the death of beauty is "a most material loss." In this poem in which he addresses "you," his beloved, the poet's regrets "grace's early term" as expressed in the "casual dances that your body knows, / Whose spirit only sense can understand." The energy, grace, rhythm, and pattern of the dance can be known only through the body. The spirit of the dance can only be experienced through the senses. Body and spirit make one another and are inextricably mixed.[31] But incorporation means death. The poet, addressing his beloved with his "Lament," says that his thought of her grew out of "my wishes and your being." He laments for what he loves and delights in: "For times when spirit, doomed and single, flows / Into the speeches of your eye and hand" (Poems 324). He sees her spirit poured out in the body--both manifest and lost.

In "La Rose des Vents" the Poet warns the Lady that this friable world is too easily worn away--"The hardest headlands / Gravel down / The seas abrade / What coasts we know"; he says that to escape this mutability they must "dwell / On the rose of the winds" (Poems 287). The Lady, however, sees another danger: When beauty seeks safety as image "in the floods / Of farthest

thought," that beauty "[d]issolves in other / and is not." She tells the Poet that they can find a bit of headland sufficient for their mortal time:

> There are some shores
> Still left to find
> Whose broken rocks
> Will last the hour;
> Forsake those roses of the mind
> And tend the true,
> The mortal flower. (Poems 287)

The mind and heart feel constantly the seduction to flee the danger and anxiety of this mutable world into a safe, concocted world of fancy where things can be *kept*. The Lady, however, like Lot's wife, would not give up "the true, the mortal flower" for the safety of "those roses of the mind." The only honest comfort for mutability is the austere economy of the universe in which what *was* inevitably becomes part of what *is*. That consolation is spoken in Wilbur's translation of two poems by Borges. The sonnet "Everness" asserts that "One thing does not exist: Oblivion"; everything that was *is* as "part of that diverse / Crystalline memory, the universe" (165). In "Ewigkeit" (eternity in German), the poets declare that "havened in eternity . . . / My many precious losses burn and stay" (166). The precious cannot be *kept* but it will *stay*, becoming part of the past that makes the present. In "Flumen Tenebrarum" Wilbur deliberately chooses not to make a Grecian Urn of his love:

As if to kiss were someway to embark;
As if to love were partly to be spent,
And send of us a hostage to the dark.
If so, I am content,

And would not have my lively longing freeze,
Nor your delays in figures of the sky,
Since none outlasts the stream, and even these
Must come to life and die. (Poems 325)

"We are this man unspeakably alone"

In The Creative Loop, Erich Harth writes that what distinguishes human beings more than anything else is "our acute awareness of *Self*, and a mental preoccupation with our being that goes far beyond the self-preserving behavior that all animals exhibit." He says that this strong sensation of selfhood "often gives rise to a feeling of ineffable solitude, an existential angst engendered by an *outside world*, the *it* that surrounds the lone *I*" (Harth xviii). The solid masses of the world as well as the infinitude of space may inflict on us the knowledge of our smallness, weakness, and inconsequence, or they may become symbols of Being, vehicles to access the transcendent.

Eliade explains how stones can come to have religious value as a manifestation of the sacred. In a hierophany stone reveals its being as power, hardness, permanence--an invulnerability to time that escapes man:

> The hierophany of a stone is pre-eminently an ontophany; above all, the stone *is*, it always remains itself, it does not change--and it *strikes* man by what it possesses of irreducibility and absoluteness and, in so doing, reveals to him by analogy the irreducibility and absoluteness of being. Perceived by virtue of a religious experience, the specific mode of existence of the stone reveals to man the nature of an *absolute existence*, beyond time, invulnerable to becoming.
> (Eliade 155-156)

In a profane world, however, the stone becomes a painful, taunting reminder of the soft and ephemeral nature of human flesh. Striking the perceiver with its solid permanence, the stone, rather than revealing an absolute, transcendent existence, highlights human impermanence.

Faced with the insult of such adamant otherness, man retaliates by cutting rock down to human size.

> Rock insults us, hard and so boldly browed
> Its scorn needs not to focus, and with fists
> Which still unstirring strike:
> Collected it resists
> Until its buried glare begets a like
> Anger in us, and finds our hardness. Proud,
>
> Then, and armed, and with a patient rage
> We carve cliff, shear stone to blocks,
> And down to the image of man
> Batter and shape the rock's
> Fierce composure, closing its veins within
> That outside man, itself its captive cage.
> (Poems 330)

The unrelenting hard resistance of rock "insults" and "angers" us " and "finds our hardness" so that we turn on it "with patient rage" to cut stone down into the image of man. In a stone sculpture the rock's very hardness, its solid structure, becomes "its captive cage," used to imprison it in the outside form of man.

Man can thus triumph over rock, turning its resistance into his own image, but what happens when man's image of self changes--when we ourselves become "strange / To what we were"? The death of God meant the attentuation of man. Thus, the sculpted rock that had locked in human will and image when we thought ourselves made in the divine pattern now confronts us with what we once were and shows us how little we have become.

> So we can baffle rock, and in our will
> Can clothe and keep it. But if our will, though locked
> In stone it clutches, change,
> Then are we much worse mocked
> Than cliffs can do: then we ourselves are strange
> To what we were, which lowers on us still.
>
> High in the air those habitants of stone
> Look heavenward, lean to a thought, or stride
> Toward some concluded war,
> While we on every side,
> Random as shells, the sea drops down ashore,
> Are walking, walking, many and alone. (Poems 330)

Our victories over hard matter come to taunt us. The sculpted sublime in Bernini's The Ecstasy of Saint Teresa mocks the aridity of twentieth century spirituality; the intensity of Rodin's The Thinker

makes our musings seem paltry. Heroic figures like Nelson on his column make the ordinary commuter seem shabby and pointless. Reduced to random, anonymous, meaningless automatons, we are taunted by the forms of the past which were defined and made singular by their passion and intent--on heaven or philosophy or conquest. Now, many, we are alone; directionless, we walk obsessively--substituting momentum for purpose.

In a universe unimaginably vast, on a planet four billion years old, a single human being has become "a diminished thing," left to ask the question framed "in all but words" at the end of Robert Frost's poem "The Oven Bird": " . . . what to make of a diminished thing"? (Frost 150). The poet asks of man, "What stony shape could hold us now . . .?" Then he invites the reader to follow "along this street / (Where rock recovers carven eye and hand)" and look "where Giacometti in a room / Dim as a cave of the sea, has built the man / We are, and made him walk" (Poems 331). Each of the sculptor's walking figures towers "like a thin / Coral, out of a reef of plaster chalk" and takes "the single form we can assume." Giacometti's figures are man reduced to the minimum --"unspeakably alone," "stripped of the singular," and "pruned of every gesture":

> We are this man unspeakably alone
> Yet stripped of the singular utterly, shaved and scraped
> Of all but being there,

Whose fullness is escaped
Like a burst baloon's: no nakedness so bare
As flesh gone in inquiring of the bone.

He is pruned of every gesture, saving only
The habit of coming and going. Every pace
Shuffles a million feet.
The faces in this face
Are all forgotten faces of the street
Gathered to one anonymous and lonely.

No prince and no Leviathan, he is made
Of infinite farewells. Oh never more
Diminished, nonetheless
Embodied here, we are
This starless walker, one who cannot guess
His will, his keel his nose's bony blade.
(Poems 331)

"Volumes"--all the vacancy outside that presses upon the starless walker--take up the space left by the withered flesh "gone in inquiring of the bone"--sucked in by the vacuum inside. The future portends nothingness for "[t]his least of man" whom we follow to make our own "grim departures."

Insulted by the adamantine otherness of rock, man responded by shaping stone into his own images only to be taunted by those heroic figures when he later fell away from their surety and direction. Now "shaved and scraped / Of all but being there," man strides puposelessly, habitually, " . . . walking to find / What railleries or rock, what palisades?" (331). The rock has the final laugh. Confronted and obstructed by cliffs of weathered stone and mocked by the bitten, attentuated image of himself in Giacometti's

figures, man is left with only momentum, a directionless urge; he is a wanderer who has no purpose for his wandering and therefore follows narcissistically the keel-blade of his own nose. The revelation of stone's adamantine otherness confronts man not only with his ephemeral nature but also with the flimsiness of his being while it lasts in time. In a time of greater faith, stone's impregnable being might have served as a symbol for an absolute existence beyond time and invulnerable to becoming, but in a world without a God, stone becomes simply a hard object to shatter or to be shattered by.

"Walking to Sleep" lets us inside the imagination of one of Giacometti's nameless walkers. The poem, a dramatic monologue in blank verse, presents alternative ways of getting through life. "Walking to Sleep" is, in the end, a poem about humility--letting go of control and letting be--and the courageous leap of faith that makes life "risk-hallowed." Living consciously in the presence of Being requires acts of attention that will necessarily entail both love and terror. At the outset, however, the poem is about just getting by. The wary speaker of the poem is a voice of experience and caution, attenuated by practicing his own advice. The "you" to whom he speaks may be either the reader or an aspect of his own mind or a silent insomniac come to the speaker for an effective soporific--or all of these. The speaker counsels his insomniac listener about how to achieve most easily and safely the goal of the title. Initially,

"Walking to Sleep" suggests the image of one of Giacometti's bitten figures striding anonymously through life toward the rest of the final anonymity of death--" . . . unspeakably alone / Yet stripped of the singular utterly, shaved and scraped / Of all but being there" (330). The title upends the normal idioms -- falling asleep and sleepwalking. "Walking to Sleep" implies an active, intentional pursuit of the momentum and the suspended consciousness of sleep-walking. Walking to sleep is a metaphor for the mind traveling purposively through interior landscapes seeking the solace of either oblivion or dream vision, deliberately courting the sacrifice of awareness which Wilbur calls "a spiritual loss" ("Sumptuous Destitution" 9).

Of the two strategies he offers for walking to sleep, the speaker seems, initially at least, to prefer the first. It entails fewer risks. The walker may actually get to sleep without feeling pain. Exercising sufficient paranoid watchfulness over the imagination might allow him to get to death without seeing it coming, without making any attachments that give him something to lose. The monologist advises that, generally, "a numb and grudging circumspection" serves best and offers these guidelines:

> Try to remember this: what you project
> Is what you will perceive; what you perceive
> With any passion, be it love or terror,
> May take on whims and powers of its own.
> (Poems 158)

The guide advises that the world is a screen for what the mind projects, and the sleeper's imagination writes the script. He also cautions that passionate attention to things of this world--whether they inspire love or terror--will give those "sensible objects" power over the perceiver. For this walk, the speaker counsels not faith but the assumed assurance of safe expectations. Step off into the blank of your mind with the confidence of a queen who sits "knowing that a chair will be there" or of a general who "raises his hand and is given the field glasses." The speaker promises, "Something will come to you" through the fog. Images will begin to accrete on the margins of the imagination.

In his earlier poem "Marginalia," Wilbur wrote that "Things concentrate at the edges," and he described the margins of the pond which collect "inlaid ruddy twigs, becalmed pine-leaves, / Air-baubles, and the chain mail of froth" (266). The speaker in "Walking to Sleep" encourages no such distinct and brillant images enamelled with life. Instead, he offers gray, amorphous, tentative shapes--undistinguished and undefined:

> Gravel will breed in the margins of your gaze,
> Perhaps with tussocks or a dusty flower,
> And, humped like dolphins playing in the bow-wave,
> Hills will suggest themselves. (Poems 158)

Sensing danger--too much delight in the dolphin simile, the speaker acknowledges that all suggestions such as the humped hills make

"[a]re yours to take or leave" but admonishes his hearer to "hear this warning":

> Let them not be too velvet green, the fields
> Which the deft needle of your eye appoints,
> Nor the old farm past which you make your way
> Too shady-linteled, too instinct with home.
> (Poems 158)

The speaker recognizes the hazard that the imagination may get snagged, hung up on the images of its own making. It may linger over its embroidery of velvet fields or try to find home comfort in the shady doorway of an imaginary farmhouse.

The speaker himself demonstrates the danger. He creates a barn out of which an emblem of death can walk:

> It is precisely from Potemkin barns
> With their fresh-painted hex signs on the gables,
> Their sparking gloom within, their stanchion-rattle
> And sweet breath of silage, that there comes
> The trotting cat whose head is but a skull. (Poems 158)

A Potemkin barn is a piece of decor like one of the villages created by the Russian statesman Grigori A. Potemkin to impress his sometime lover Catherine the Great. The villages were marvelous fakes, facades to decorate the empress' route of travel. Specific sensual images--the color and complication of the hex sign, the perception of the sparkling gloom of the barn's interior seen from the sunlit exterior, the sound of stanchion rattle with the implication of

warm-bodied cattle, the smell of green fodder--bring imaginatively alive the things of this world to which the mind becomes attached and which will keep it awake, resisting the final sleep. The speaker warns that it is precisely from these barns of the imagination "that there comes / The trotting cat whose head is but a skull." In the midst of delight comes the dread of death.

What must be avoided is any passion, love or terror. Even "numb and grudging circumspection" can be overdone. To shrink "your purview / To a tight vision of your inching shoes" may, "as soon as you come to think," have you crossing "[a]n unseen gorge upon a rotten trestle." For the mind the only safe landscape is one not worth looking at--"its grass / As dry as lichen, and its lichen grey," a "glumly simple country" that an occasional glance of "flat indifference" will stabilize. Wilbur enhances the effect of the bleak imagery of these lines by regularizing the meter to a steady iambic pentameter and by repeating words and sounds. The repetition of words--lichen, lichens and "time to time" --and sounds--the recurrent *g*'s of grass, grey, glumly, glance, and the near homophones, lifeless and leafless--contribute aurally and visually to the sense of sameness.

Paradoxicallly, the lifeless view, the speaker assures, "should set at rest all thoughts of ambush." Nevertheless, to further ensure his safety, the monologist urges the listener to control his image-making and disallow any shelter for a would-be assassin:

> . . . permit no roadside thickets
> Which, as you pass, might shake with worse than wind;
> Revoke all trees and other cover; blast
> The upstart boulder which a flickering shape
> Has stepped behind; above all, put a stop
> To the known stranger . . . . (Poems 159)

Here in the poem Wilbur makes a wonderfully smooth transition from images of the outside world to interior scenes by having the speaker interrupt himself to describe how the drowsy mind can jump abruptly like an old film from one setting to another, omitting transitional frames:

> Here let me interject that steady trudging
> Can make you drowsy, so that without transition,
> As when an old film jumps in the projector,
> You will be wading a dun hallway, rounding
> A newel post, and starting up the stairs.
> (Poems 159)

The three-in-a-row accents on "old film jumps" coming right in the middle of that line aurally perform the hitch and lurch of the film in the projector.[32] The progressive forms of the three future tense verbs--wading, rounding, starting--gets the film of the imagination moving again. The trochaic "rounding" coming at the end of the line makes us stop and turn the corner to get past the newel post at the beginning of the next line.

The speaker advises that should such a sudden change of scene occur, the listener must "adjust to circumstances / And carry on . . . ."

He adds further precautions so that the insomniac can protect himself from the interior hazards:

> Detach some portion of your thought to guard
> The outside of the building; as you wind
> From room to room, leave nothing at your back,
> But slough all memories at every threshold;
> Nor must you dream of opening any door
> Until you have forseen what lies beyond it.
> (Poems 159)

The feel of these lines is of a soldier cautiously and tentatively moving through the dangerous--possibly sniper-infested, booby-trapped--buildings and terrain of a captured enemy town. He must guard himself against the danger awaiting outside and the danger awaiting within--the lapse of attention from the narrowly focused present into distracting memories or hopes.

There ensues a surreal journey through this house, "the abrupt structure" of the imagination, which improvises like vapor assuming various forms. The walker passes down into a gritty cellar past fuse box and sheeted lawn chairs to emerge into "some cathedral's pillared crypt." The burial place becomes a mine shaft of "drifts and rubbly tunnels." Lines describing a mine elevator cage create a fast-changing, dream-like quality:

> Promptly the hoist, ascending toward the pit-head,
> Rolls downward past your gaze a dinted rock-face
> Peppered with hacks and drill-holes, which acquire
> Insensibly the look of hieroglyphics. (Poems 159)

The reversal of accent in trochaic "promptly" at the beginning of the line gives the feel of abruptness. The combination of "ascending toward" and "[r]olls downward past" offers a confused sense of direction; up and down occur at once. The solid rock face seems to move past like a sheet of scenery turned on rollers. Nothing is steady or lasting. Hacking and drill holes on the surface of the rock take on "the look of hieroglyphics" as the open lift moves past them. The protean imagery offers the would-be sleeper a choice:

> Whether to surface now within the vast
> Stone tent where Cheops lay secure, or take
> The proffered shed of corrugated iron
> Which gives at once upon a vacant barracks,
> Is up to you. (Poems 160)

He can choose as his destination the Great Pyramid at Gizeh, the "stone tent" burial place of the ancient Egyptian king Cheops, or he can choose the corrugated iron shed covering the head of a mine shaft.

Rhetorically, the speaker-guide asks a warning question: "Need I at this point, tell you / What to avoid?" Thus he again reminds the walker-to-sleep not to let his imagination be seduced by an arresting scene--by a smiling woman in a pleasant room arranging a bowl of freesias. This cautionary image--like the Potemkin barn--stands out in bold contrast to the vague, gray background details the speaker has been suggesting to fill his insomniac's traveling mind. This scene

is filled with sunlight and allure. A graceful woman is dressed in yellow and is as sleek as lemonwood. She has arranged a bowl of freesias--exotic, fragrant yellow blossoms of an iris-like plant. The walker must not let the thought of her--

> . . . mislead you where the curtains,
> Romping like spinnakers which taste the wind,
> Bellying out and lifting till the sill
> Has shipped a drench of sunlight, then subsiding,
> Both warm and cool the love-bed. (Poems 160)

The diction is implicitly full of sexual delight. Like spinnaker sails running before the wind--thin, light curtains dance and tease; they swell ("bellying out") and lift erotically until, having shipped "a drench of sunlight," they subside. The romp of the curtains warms the "love-bed" with sunlight and cools it with the breeze.

However, the speaker reminds his listener of the earlier mentioned danger of any passion--either love or terror: " . . . Your concern / Is not to be detained by dread, or by / Such dear acceptances as would entail it" (160). As hazardous as a preoccupation with an individual fear itself would be to the business of falling quietly into oblivion, the more insidious threat to the imagination is to get caught in the net of the things of this world. The "dear acceptances"--love of another, delight in beauty, a shared joy--make the walker-to-sleep especially vulnerable because they multiply the opportunities for worry, for painful awareness. It is one thing to guard his own back; to extend attachments to others makes

the seclusion of his attention impossible. The only safety is to pursue "an ever-dimming course / Of pure transition"--to keep walking but not to think. If he can successfully mope "[l]ike a drugged fire-inspector" past porous, crumbling limestone, down the sewer-like halls of boarded-up hotels, and through attics filled with "glassy taxidermy," the speaker tells the listener what he may hope for "at some point of the pointless journey." The wonderful illogic of a "point" to the "pointless" heralds what follows. If closely guarded enough, the imagination may look forward to being blown away without ever noticing it.

> . . . . What you hope for
> Is that at some point of the pointless journey,
> Indoors or out, and when you least expect it,
> Right in the middle of your stride, like that,
> So neatly that you never feel a thing,
> The kind assasin Sleep will draw a bead
> And blow your brains out.
> (Poems 160)

Strategic pauses and irregularities in the meter are a significant part of the shock and effectiveness of this passage. The syntactically engineered breaks indicated by commas after "out," "it," and "stride" and the added stress on "it" give a lurching quality to what is otherwise iambic pentameter. "Like that," set of by punctuation and syntax, cracks like the pistol shot it represents. The last line has only two-and-a-half feet and ends on an unstressed syllable, rhythmically

producing the abruptness of the kind assasin's interruption, of the death-like blow the words describe.

After a significant pause represented by blankness at the end of the last line of the first part and at the beginning of the first line of the second part of the monologue, the disconcerted speaker asks, "What, are you still awake?" Obviously his first tactic for "walking to sleep" has not worked and he must suggest another. The speaker now counsels the walker to "[f]orget what I have said" and face the risk of "another tack and footing":

> Open your eyes
> To the good blackness not of your room alone
> But of the sky you trust is over it,
> Whose stars, though foundering in the time to come,
> Bequeath us constantly a jetsam beauty. (Poems 160)

The tone and message are entirely changed. Instead of urging self-protective blinders to guard against sensual stimulation, the speaker demands that the listener open his eyes to not only the world that he can see but to the world he can imagine--"the sky you trust." Instead of the paranoia of his earlier monologue, the speaker's advice now has a religious sense of the beneficence and oneness of the universe--"the good blackness." The image of the dying gift of the stars is exquisite. The beautiful changes, and the light we see from distant stars was generated eons ago. Though they may have failed light years past--in what for us is the time yet to come--we still receive the brillance discharged in their dying, the bequest of their

"jetsam beauty." As the poet writes in "Icarium Mare": "This is no outer dark / But a small province haunted by the good" (20).

With just brief allusions, Wilbur creates an aura of expectant trust. The speaker tells the walker, "Now with your knuckles rub your eyelids, seeing / The phosphenes caper like St. Elmo's fire." By comparing the shimmerings elicited through stimulating the retina by pressure on the eyeball to the glow over church steeples or ship masts caused by the the discharges of atmospheric electricity during stormy weather, the poet freights the line with subtle meaning. Mediterranean sailors considered Saint Elmo's fire to be a visible sign of the saint's (actually Erasmus, Elmo is a derivation) guardianship over them (Attwater 116). The walker's ability to elicit a similar phenomenon at anytime suggests the omnipresence of that sign and its susceptibility to human need. The lines "And let your head heel over on the pillow / Like a flung skiff on wild Gennesaret" are also allusively comforting. Gennesaret is another name for the Sea of Galilee, and the image of sleeping in a small boat on that stormy sea recalls the Gospel story of Jesus "asleep on a pillow" while winds rocked and waves filled the little fishing vessel in which he sailed. When the frightened disciples awakened him, Jesus stilled the waves and then asked, "Why are ye so fearful? How is it that ye have no faith?" (Mark 4:40). Here in "Walking to Sleep" the speaker counsels the walker to let his head roll on the pillow, to let his imagination be tossed by whatever comes:

> Let all things storm your thought with the moiled flocking
> Of startled rookeries, or flak in air,
> Or blossom-fall, and out of that come striding
> In the strong dream by which you have been chosen.
> (Poems 161)

Instead of being isolated and furtive, the walker must become a purposeful actor in the imaginative reality through which he is himself included.

The speaker's question "Are you upon the roads again?" recalls the walker's earlier stepping out. Then his guide had suggested that the best landscape was one not worth looking at; now the walker-to-sleep is encouraged to let himself be led past "honeyed meadows which might tempt / a wolf to graze." The speaker calls the walker to delight in difference, in life other than his own, to be led past:

> . . . groves which are not you
> But answer to your suppler self, that nature
> Able to bear the thrush's quirky glee
> In stands of chuted light, yet praise as well,
> All leaves aside, the barren bark of winter.
> (Poems 161)

The "suppler self" is the imagination able to endure the joy of the songbird, cavorting in the chutes of light that stream through the leaf gaps in groves of trees and also able to praise the stark winter landscape. Wilbur's playfulness with language here mimics the experience to which the speaker calls the listener. The poet reverses the expected use of verbs. The walker is able to "bear" glee and to

"praise" bareness. The "stands" are not of trees but of "chuted light." Wilbur revitalizes the hackneyed "all kidding aside" or "all jokes aside"; winter becomes "all leaves aside." In this verbal play, the unfettered imagination frolics in gaiety, transfiguring all the dread of the earlier landscape which revoked all trees and preferred its "grass / As dry as lichen, and its lichens grey."

But the speaker does not call his listener just to delight in beauty. Before he had proscribed both love and terror; now he insists on both:

> When, as you may, you find yourself approaching
> A crossroads and its laden gallows tree,
> Do not with hooded eyes allow the shadow
> Of a man moored in air to bruise your forehead,
> But lift your gaze and stare your brother down,
> Though the swart crows have pecked his sockets hollow.
> (Poems 161)

No matter how gruesome the sight, the traveler cannot with averted, half-closed eyes look away from his dead brother hanging on the gallows. The shadow of the thing not seen would bruise his forehead, leaving the stain of cowardice on his imagination. The walker must "stare down" his eyeless brother. By looking full in the ravaged face, by not refusing to perform the only acknowledgment he can, the walker symbolically and imaginatively brings the "man moored in air," the suffering Christ-figure, back down to brotherhood.

Like the adventurer God of process theology, the monologist cannot foresee what this new, risky tack of openness to all life will

mean for his listener: "As for what turn your travels then will take, / I cannot guess." He can offer no guarantees but suggests some possibilities:

> . . . Long errantry perhaps
> Will arm you to be gentle, or the claws
> Of nightmare flap you pathless God knows where,
> As the crow flies, to meet your dearest horror.
> (Poems 161)

Again Wilbur uses words in paradoxical and unexpected ways. The superficial contradiction in being "armed" to be "gentle" tells a deeper truth: There is no strength without gentleness, no gentleness without strength. If the traveler practices a life of chivalric deeds, arming his strength with gentleness, he may be rewarded not with lance and spurs but with the desire to comfort, not to injure or conquer. On the other hand, the choosing of a vocation may not be his. He may be seized in the talons of a Poesque nightmare bird. "As the crow flies" reminds the reader of "the swart crows" that pecked out the eyes of the man on the gallows tree. The clawed nightmare may flap the walker to meet his "dearest horror." Speaking of a horror as "dear" is contradictory outside of Edgar Allan Poe's poetry, but Poe has been a fascination of Wilbur's for forty years. And "dear" harkens back to the warning in the first part of the the monologue about "dear attachments" that entail a concomitant dread. The dearest horror may be the most costly, may involve the loss of

the thing most loved. But the common epithet "God knows where" takes on a new assurance: God *knows* where.

Earlier in the monologue, the speaker had said that if the walker-to-sleep carefuly guarded his awareness from love and terror, all he could offer him was the hope that the kind assassin Sleep might blow his brains out without the walker ever feeling a thing. Now, the speaker suggests that with luck and a willingness to be receptive to whatever comes, the walker might experience a moment as fragile, unexpected, and wonderful as when "inland, one can sometimes smell the sea."

> . . . you may be granted,
> . . . . . .
> A moment's perfect carelessness, in which
> To stumble a few steps and sink to sleep
> In the same clearing where, in the old story,
> A holy man discovered Vishnu sleeping,
> Wrapped in his maya, dreaming by a pool
> On whose calm face all images whatever
> Lay clear, unfathomed, taken as they came.
> (Poems 161)

The final scene is one of perfect serenity. If the walker is lucky he may stumble to sleep in the same clearing where the Hindu god Vishnu, the Preserver, fell to sleep and dreams. "Maya" refers to the illusion-making power of a god, to the powerful force that creates the cosmic illusion that the phenomenal world is real. As Vishnu lay swaddled in his maya, a pool, the mirror of the world, reflected back the images of whatever came. The suggestion is, I think, that the

walker, if he is ready to take whatever images come, can practice this illusion-making power and can make his world through the interaction of his imagination and phenomenal reality.

Another poem included in the collection Walking to Sleep helps elucidate this dynamic balance between the "formative mind and a reality which that mind insists on recognizing." In "Thyme Flowering among Rocks," Wilbur tries to avoid symbolism, to keep the thyme from representing--as it would "if Japanese"--"grey boulders / Walloped by rough seas" and its flowers' spikes from becoming "the balked water" tossed to froth: "Here, where things are what / They are, it is thyme blooming, / Rocks, and nothing but" (Poems 142). Exploring the plant and seeing nothing but what is there, " . . . you / Are lost now in dense / Fact." Blinking at the detail of the small plant which becomes an engulfing jungle world to his close vision, the poet loses proportion the way a bathysphere in a school of fish forgets the ocean in the motion of striped fins. He marvels:

> It makes the craned head
> Spin. Unfathomed thyme! The world's
> A dream, Basho said,
>
> Not because that dream's
> A falsehood, but becaue it's
> Truer than it seems. (Poems 143)

Of course, it is time--and all the world of time--that is unfathomed. The world is a dream, and the poem is an illusion, but neither is a falsehood; each is truer than it seems. The opening line, "This, if

Japanese" refers to the thyme garden and to the poem itself and implies that neither is Japanese. However, the poem is written in the seventeen syllable form of the English version of Japanese haiku. The thyme plant seems very much like a bonsai garden. And Basho is both a figure in Japanese legend and a Japanese poet, the acknowledged master of haiku. In legend, Basho is the fairy of the banana leaf who sings and dances to these words: "Whether sentient or devoid of sense, / Whether a blade of grass or a tree, / Life is nothing but a manifestation / Of the ultimate reality, which is without any distinctive marks . . ." (Anesaki 3.344).

Speaking about "Thyme Flowering among Rocks," Wilbur describes the fierce attention and careful description that produced the poem:

> "Thyme Flowering among Rocks" is a poem where I simply look at the thyme in flower as long as I can and as closely as I can, seeing whatever botanical things make it be what it is. . . . I think one effect of that kind of exhaustive description is to take you beyond the object you usually perceive. You go away from the object as you do in a metaphor, but you do so by going into it. *You reveal a world that ordinarily lies beyond human perception and you imply a further beyond*.
>
> ("Mystery of Things" 141; emphasis added)

All being reveals Being. Yet, Being itself has no identifying characteristics and can be intuited only as the force that makes possible all the uniquely individual beings. The artist must resort to obliqueness because reality and Being cannot be known directly.

Attempts to perceive become projections of self onto the environment, but at the same time what one perceives passionately exerts a reality of its own and resists the impress of imagination. The vision, a fierce calm, comes through the struggle to know what escapes our knowing.

Wilbur lives in a world where he sees Cheshire smiles in tangible trees. Any ordinary day is magical with being and fading and lost being. His celebration of the world's grandeur echos Hopkins who also loved the "pied beauty" of an impermanent world: In "Objects" Wilbur writes:

> For is there any end to true textures, to true
> Integuments; do they ever desist from tacit tragic
> Fading away? Oh maculate, cracked, askew,
>
> Gay-pocked and potsherd world
> I voyage, where in every tangible tree
> I see afloat among the leaves, all calm and curled,
> The Cheshire smile which sets me fearfully free.
> (Poems 361)

When words fail the vision, the thing missed glows briefly and fades slowly like the smile of a Cheshire cat. The fading smile is the only proof of the cat's existence. Julian Huxley in Religion without Revelation refers to "the last fading smile of a cosmic Cheshire cat" (Huxley 58). For Wilbur, each of the things of this world is the sly grin of Being which we see only as it disappears.

Eiseley was skeptical that science would ever succeed in subduing mystery. At the end of The Immense Journey he writes:

> I would say that if 'dead' matter has reared up this curious landscape of fiddling crickets, song sparrows, and wondering men, it must be plain even to the most devoted materialist that the matter of which he speaks contains amazing, if not dreadful powers, and may not impossibly be, as Hardy has suggested, 'but one mask of many worn by the Great Face behind.'"
> (IJ 210)

One of the greatest mysteries evolved during the last ice age, "the angry winter" as Eiseley called it: While "a mantle of blue ice stolen from the shrinking seas" covered one-third of the earth's land mass, the human brain also put on a layer of "crystalline thought substance" over the "forgetful pathways of the animal brain" (UU 104). With that mental ice, man discovered first time and death and then consoling fables and eventually the abstraction of space-time so that now he shivers "inwardly before the endless abysses of space as he once shivered unclothed and unlighted before the earthly frost" (UU 104). Out of nature came the multiform and troubling mystery of the human mind.

CHAPTER II

THE MIND AS NATURE, THE NATURE OF MIND

> This relation between the mind and matter is not fancied by some poet, but stands in the will of God, and so is free to be known by all men. --Emerson

> The mind does not understand its own reason for being.
> --Rene Magritte

> We are confronted . . . not with *the* universe, which remains an eternal riddle, but with whatever model of the universe we can build within the mind. Every thinking creature in the universe shares this predicament; for all, the ultimate subject of inquiry is not the outer universe but the nature of its dance with the mind.
> --Timothy Ferris

> The resources of the mind are not commensurate with its ambition. --Santayana

> "In nature there's no blemish but the mind."
> --Antonio Twelfth Night

Hidden from us because it is so near and constant, mind is the most alluring, evasive mystery--and the mystery with the greatest potential for terror. Mind is what we know--perhaps all that we know--and is our only agent of knowing. Yet, paradoxically, we cannot know our own minds without what Emerson called Nature--"all that is not me." In "Advice to a Prophet" Wilbur calls this Nature

that calls forth our natures the "live tongue" and asks, "What should we be without / . . . . / These things in which we have seen ourselves and spoken?" (Poems 182-183). The mind which discovers the world is itself discovered through the world. Eiseley saw around him a "natural history of souls" which can be learned "only from the symbolism inherent in the world":

> It is the natural history that led Hudson to glimpse eternity in some old men's faces at Land's End, that led Thoreau to see human civilizations as toadstools sprung up in the night by solitary roads, or that provoked Melville to experience in the sight of the sperm whale some colossal alien existence without which man himself would be incomplete. (FOT 115)

The mind needs that which is "outside" to make itself. As Martin Buber observed, a person becomes conscious of participating in being only through relationship: only "being-with" reveals being. William Barrett in The Death of the Soul declares that we cannot "understand mind unless we are able to grasp it as part of the total Being within which the human person exists and functions" (112).

In the twentieth century, however, the cosmos as we understand it, this "total Being," has undergone a change as radical as the transformation from the Ptolemaic to the Copernican universe. The stable, clock-work world of Newtonian physics has been shattered into a space-time continuum of Einsteinian relativity and a quantum world of Heisenbergian uncertainty swirling in the winds of chaos theory. As Joseph Wood Krutch described the situation, we

have had thrust upon us a scientific world view that has more in common with the mysteries and metaphors of the Middle Ages than it has with the mechanical sureties of the Newtonian paradigm. Krutch points out that "at the center of Dante's conception of the visible world there was accepted mystery" and that the "visible world was held together by something called 'Love'" (175). Krutch says that Newton, in his explanation of the universe, "substituted the technical word 'gravity' for the frankly mysterious word 'love'" and offered mechanical models to replace mystery: "What he told us was that in the whole vast extent of the visible universe there is nothing which is not essentially like our own backyard" (175-176).

Modern physics, however, has returned us to the incomprehensible and mysterious and has added the uncertain:

> . . . we are being told by at least certain of Newton's successors that instead of living in an infinitely extended back yard, even the back yard is not at all what it seems; that so far as the universe as a whole is concerned we do not know how it is operating or where it is going; that common sense is wholly inadequate to comprehend it, and that, in so far as one can guess, we are actually somewhere in a sort of soap bubble which is expanding at an inconceivable but ever increasing rate and, for all we know, may burst. (Krutch 177)

The post-modern scientific world has subverted the common-sense views of Bacon and Newton: "Once more we live in a universe which is not at all what it seems, either to the senses or the common sense . . . . even the world of matter as we think we perceive it is as illusory

as it was ever said by the mystics to be" (Krutch 178). Mystics once saw the world as Spirit; physicists now describe the world as Energy. Krutch says that the concept of gravity is itself no more comprehensible than Dante's Love but it can be "mathematically formulated."

Annie Dillard in Pilgrim at Tinker's Creek writes that when Werner Heisenberg in 1927 "pulled out the rug . . . our whole understanding of the universe toppled and collapsed" (202) and since then some physicists have themselves become "a bunch of wild-eyed, raving mystics," getting to their mysticism via the "experimental method and a few wild leaps such as Einstein made"(204). Dillard quotes Sir Arthur Stanley Eddington, the astronomer, physicist, and mathematician who, with his observations made during a solar eclipse in 1919, provided the first independent confirmation of Einstein's theory that gravity will bend the path of light when the light passes near a giant star. Eddington said that after Heisenberg's Principle of Indeterminancy we are left in a universe composed of "'mind-stuff'" and that "'the physical world is entirely abstract and without 'actuality' apart from its linkage to consciousness.'" After the Principle of Indeterminancy eroded the concept of causality, Eddington said we are left "'with no clear distinction between the Natural and Supernatural'" (qtd. in Dillard 203- 204). In the twentieth century " . . . the whole universe has again become a paradox" (Krutch 182).

Indeed, Krutch finds the mind of the twentieth century as mysterious as the physical world it inhabits: "the internal world as it is described by the 'new psychology' is as contrary to our own conscious experience as is the external world described by physicists" (178). The forces which the Middle Ages called spiritual we refer to--with no more understanding--as the unconscious. Though Freud and his followers dismissed with contempt concepts of God, Soul, and Sin, Krutch considers "the unconsciousness . . . as purely hypothetical as the Soul," and he considers certain other key Freudian concepts (e.g, the "Censor") to be "metaphors serving to recognize the existence of something whose nature and mode of operations are both uncomprehended" (181). According to Krutch, what Freud actually did was to reintroduce the concept of the Soul but call it by its Greek name--the Psyche (181). Brooke says that what had once been the state of the soul became in the twentieth century the state of the mind (Science and Religion 324)

In the twentieth century, as psychology has blurred soul into mind, physics has erased the distinction between mind and matter. Einstein's formula $E=MC^2$ has caused past common-sense certainties about the differences between matter and energy to vanish: "What [the formula] says is that the only two supposedly primary, discontinuous, fundamentally different realities of the physical universe are not discontinuous or fundamentally different at all, that instead of being qualitatively different they are actually quantitatively convertible" (Krutch 185). Einstein's assertion--

proven in atomic explosions--that "matter can be turned into energy equal to that mass multiplied by (of all things!) the square of the speed of light, [flies] in the face of all ordinary experience" (188). What was once considered to be ultimate is no longer ultimate; the ultimate is replaced by temporary, interchangable manifestations--manifestations entirely relative to the place of the observer in four-dimensional space-time. Einstein and other modern physicists have made the universe mysterious again, and that mystery has its parallel in the human brain:

> If Matter can become Energy, there seems no great difficulty in believing that the physical stuff of the brain may become Mind--in some sense as different from the protoplasm of a cell as the energy released over Japan was different from the matter which disappeared when that energy came into being. (Krutch 196)

Thought itself seems no more than one of many transformations along the energy/matter continuum. Through the magic of photosynthesis sunlight becomes substance in green plants. Consuming those plants (directly or indirectly), human beings become engines for turning substance into, among other things, mental energy. Every thought in the human mind--Keats' odes, Godel's theorems, Hitler's final solution--began as sunlight. With such revelations over the last century-and-a-half, a profound change has occurred in the perception of the relationship between nature and man. In the last century, nature was outside, the visible world;

in the twentieth century, humankind has become part of nature, one of its various manifestations. Now nature is inside, too; the mind is nature.

Some of the most renowned scientists and philosophers of the twentieth century have turned their attention to exploring this nature inside our heads by trying to understand how the material substance of the brain makes what seems to us the nonmaterial mind. To a large extent, mind has replaced the concept of soul as the subject of concern for those who would understand the nature of our being and our relationship to all that our individual minds tell us is something else. The individual, subjective consciousness may be suspect as an honest and capable perceiver, but, as Krutch says, "consciousness is the *only* thing of which we have direct evidence" (122). Yet, even that evidence has become doubtful. The Cartesian dualism which has invited us to believe that mind is some unified, superior essence which inhabits and animates physical selves and acts as the audience for all the theatrics inside our heads and out has been challenged. Instead of a single, unified censor-- *the seeming I* --scientists and philosophers like Gerald Edelman, Erich Harth, and Daniel C. Dennett have suggested a process of neurochemical interchange within the brain during which consciousness is constantly made and remade in a dynamic process that guarantees flux as much as stability. They describe consciousness as the process of various parts of the brain talking to one another.

Dr. Gerald Edelman, who won the Nobel prize in immunology, offers a biological explanation for how the mind emerges from the brain. Edelman bases his theory of brain development and function on infinite variation within patterns. In Bright Air, Brilliant Fire, Edelman suggests that cerebral neurons migrate about during fetal life until cell-adhesion molecules glue them together into synaptic patterns that are only partly determined by genetic instructions. After birth, those synaptic connections which are most useful in interpreting and categorizing sensory input are preferred and strengthened, thereby creating in the brain a flexible mechanism that can constantly adapt to changing stimuli. Edelman believes that a process called "reentry" allows the brain's maps, synapses, and circuitry to work together to categorize and integrate either external sensory stimuli or internal stimuli arising when one part of the brain's circuitry signals another. Edelman describes a dynamic process of constant intrabrain exchange of symbols among millions of neural connections. According to Edelman, there is no guiding, over-riding "syntax, no algorithm, no homunculus," only a matrix of neural maps signaling "to each other in varieties of ways in a vast parallel scheme" (qtd. in Levy 69).

In Consciousness Explained, philosopher Daniel C. Dennett trades in one set of metaphors based on mind/body dualism ("the Cartesian Theater, the Witness, the Central Meaner, the Figment") for another set of metaphors ("Software, Virtual Machines, Multiple Drafts, a Pandemonium of Homunculi") based on mind/body as a

unitary materialism. Denying (like Edelman) that there is any anatomical center of consciousness or any governing homunculus which acts as its overseer, Dennett describes a process whereby a sensory area of the brain receives and registers a stimulus and then passes it on for further discrimination. He likens the process to evolving multiple drafts of a piece of writing:

> . . . this multitrack process occurs over hundreds of milliseconds, during which time various additions, incorporations, emendations, and overwritings of content occur, in various orders. These yield, over the course of time, something rather like a narrative stream or sequence, which can be thought of as subject to continual editing by many processes distributed around in the brain, and continuing indefinitely into the future. (Dennett 135)

As the brain embellishes or amends the original sensory information, the series of responses to the original stimulus become "multiple drafts of narrative fragments at various stages of editing in various places in the brain" (135). As Dennett sees it, these narrative drafts become what we perceive as the stream of consciousness.

Erich Harth, author of The Creative Loop, also speculating on the puzzle of consciousness, concludes that "we cannot escape the fundamental conundrum that either single neurons are capable of knowing and understanding or else some strange *nonlocal* processes are going on" (63). Harth, a physics professor, considers the thalamus to be crucial to consciousness and those "nonlocal" processes. In particular, Harth theorizes that the lateral geniculate

nucleus (LGN), the thalamic visual relay between the senses and the cortex, not only transmits stimuli received from the retina to visual centers in the cortex but that the LGN also is the locus of feedback pathways from both the cortex and the brainstem. The brainstem, one of the oldest structures in the brain, includes the reticular formation which is known to be essential to consciousness and thought. Harth concludes that the LGN not only receives sensory messages but modifies them "*at the behest* of higher brain centers"--thereby participating actively in the perceptual process (65). A "physicalist" looking for a way "to give a physical account of our feelings of selfhood and apparent cognitive unity," Harth makes his case for a self-referent process, the "creative loop," in which there is "an inversion of sensory processing through which images are re-created and projected on screens near the bottom of the sensory pathways [LGN] where they originated in the first place" (xxiii). He describes the perceptual process which goes on in the LGN as "a *competition* between the *reality* that is conveyed from the eyes and the *fancy* that comes down from the cortex" (68). Harth says the observer of this process is the brain itself, "which analyzes and recreates, and then observes its own creations" (xxiii).

Nobel laureate Francis Crick, who in collaboration with James Watson discovered the structure of the DNA molecule, offers yet another variation on the theme of how the brain makes a mind. In his Faustian-titled book The Astonishing Hypothesis: The Scientific Search for the Soul, Crick redefines the soul in the terms of

materialist science. He counterpoints the religious definition of soul as expressed in the Roman Catholic catechism ("The soul is a living being without a body, having reason and free will.") with his own "Astonishing Hypothesis" that each individual's joys, sorrows, memories, ambitions, sense of personal identity and free will are "no more than the behavior of a vast assembly of nerve cells and their associated molecules" (3). In an appendix to The Astonishing Hypothesis, Crick even proposes an anatomical location for Free Will --the anterior cingulate sulcus next to Brodmann's area 24 (267). Like Harth, Crick speculates that consciousness depends on crucial thalamic connections with the cortex. Positing the presence of theoretical "reverberatory circuits" in the cortex, Crick declares that consciousness exists only when the thalamus can transmit information to the cortex and strong reverberations occur. Basing his current brain research on studies of the visual system of mammals, Crick believes that "a detailed neurobiological understanding of visual awareness" will lead to understanding other forms of consciousness (268). He admits, however, that despite the enormous amount known about the psychology, physiology, and the molecular and cell biology of vision, "we really have no clear idea of how we see anything" (24). In a review of The Astonishing Hypothesis, poet Fred Chappell finds Crick's assumptions in the face of admitted ignorance ironical. Surveying the author's supple embrace of theories that depend on future verification of crucial elements,

Chappell expresses his sarcastic admiration for "Crick's religious faith in the laboratory and its luminous future" (Chappell F5).

Physicist Roger Penrose, who shared with Stephen Hawking the 1988 Wolf Prize for physics in honor of their joint contribution to our understanding of the universe, offers an hypothesis about the nature of mind which is far more astonishing than Crick's. Penrose believes that we will need a new physics in order to understand mind. He maintains that as yet no physical, biological, or computational theory comes close "to explaining our consciousness and consequent intelligence" and that any scientific world-view with pretensions to completeness must "profoundly" come to terms with the problem of conscious minds (8).

Penrose envisions the new physics capable of explaining mind as combining the priniciples of quantum theory with Einstein's general relativity for a "quantum-gravitational phenomenon" and including noncomputability as an essential feature. Although he, too, believes that mind is the product of physical processes, Penrose considers a significant element of consciousness to be "noncomputational"--i.e., something that cannot be duplicated or mimicked by the artificial intelligence of digital computers because it "cannot be encapsulated in any finite set of rules" and therefore cannot be simulated computationally (59).[1] Although it has not yet been encountered in known physics, Penrose believes that an element of "mathematically precise activity" that can be proved to be beyond computation must be inherent in physical laws that shape

both the world and the mind (27-28). Claiming that "in mathematics . . . our thinking processes have their purest form," Penrose also insists that "it is within mathematics that we find the clearest evidence that there must actually be something in our conscious thought processes that eludes computation" (64). He believes that this noncomputational element of mathematical thought is confirmed by "the most important theorem in mathematical logic"--Kurt Godel's incompleteness theorem. Penrose calls Godel's theorem (articulated in 1930) "probably the most fundamental" contribution to the foundation of mathematics and says it initiated "a major step forward in the philosophy of mind" (64). Penrose argues that Godel's establishing "indisputably . . . that no formal system of sound mathematical rules of proof can ever suffice, even in principle, to establish all the true propositions of ordinary arithmetic" makes a strong case for the proposition "that human understanding and insight cannot be reduced to any set of computational rules"--because without a system of formal rules those arithmetical truths *have been discovered by human intuition and insight* (64-65).

In Shadows of the Mind: A Search for the Missing Science of Consciousness, Penrose proposes that mind is much more mysterious than neurons talking to one another. Penrose postulates that quantum states can occur within the protected environment of the microtubules inside individual neurons and that consciousness itself is the result of a global quantum state occurring across large areas of the brain. He speculates that quantum action in the cytoskeletal

control of neuronal synaptic connections interfaces with the larger classical brain functions (nerve signals) to exert its fundamental influence on brain behaviour manifested as consciousness. Penrose says for Nature biologically to create the unity of a single mind out of quantum coherence is so remarkable as to be almost incredible, but the main evidence that she has done so comes from "the fact of our mentality" (373).

The Oxford mathematician believes that his quantum theory of mentation requires the brain to operate on biological systems that "harness the details of a physics that is yet unknown to human physicists" (373). For Penrose, this as-yet-unknown physics waits for our discovery in "the Platonic world of mathematical forms"--a third world which he considers to co-exist along with the world of our conscious perceptions and the world of physical reality. In fact, Penrose believes that the world of perfect forms is primary to the physical and mental worlds, which are themselves shadows of the Platonic (417). Penrose says the Platonic world pre-existed life on earth and "will remain after all life has perished" (413). Only some of its forms--"a rag-bag of abstract concepts" like Euclidean and non-Euclidean geometry, natural numbers, Lagrange's theorem, the algebra of complex numbers, etc.--have been discovered (not created) by human beings. Penrose identifies three mysteries spawned by these three worlds of consciousness, materiality, and forms: 1) " . . . the mystery of why such precise and profoundly mathematical laws play such an important role in the behaviour of

the physical world," 2) " . . . the mystery of how it is that perceiving beings can arise out of the physical world," and 3) " . . . the mystery of how it is that mentality is able seemingly to 'create' mathematical concepts out of some kind of mental model" (414). He finds it equally amazing that the physical world somehow emerges out of the Platonic world of mathematics as that "subtly organized material objects can mysteriously conjure up mental entities from out of . . . material substance" and that "apparently vague, unreliable, and often inappropriate mental tools . . . appear nevertheless mysteriously . . . to conjure up abstract mathematical forms, and thereby enable our minds to gain entry, by understanding, into the Platonic mathematical realm" (413-414). Searching for an explanation of the mind, the physicist becomes a Platonist, a mystic, convinced that the mystery of nature and the mystery of mind will partake of a shared solution.

As Penrose, Edelman, Crick, Harth, and Dennett currently pursue through biology, physics, philosophy, and psychology the mystery of how the brain makes a mind, Loren Eiseley searched the past to explain the presence of the mind-making brain. He tried to understand the nature of nature and the nature of mind by seeking for the beginnings, looking for patterns across the eons of evolutionary time--patterns that would explain the development of the human brain and the ensuing burden and joy of consciousness. In doing so, he used broken fragments, the evidence of paleontology and anthropology, the history of science and the concept of evolution,

to devise latter day creation myths which offer little comfort and much uncertainty.[2] Like all myths, his speculative recreations of natural history are full of mystery and portent. They replace the spare, primitive creation myths dominated by one-time maker-gods with the complexity of a slow, inexorable process that continues through the present and moves toward a future that makes no promise to include us. As Eiseley recreates it, the past is as full of contingency and indeterminancy as the present. His history of the effort to know ourselves and our world through paleontology, anthropology, biology, and botany takes on the tone of a latter-day Paradise Lost; his studies of Darwin, Wallace, Hutton, and Bacon substitute for religious hagiography. His descriptions of possible beginnings of consciousness--as lungfish or as hominid groping, without intentionality, toward humanness--convey a deep sense of mystery and religious awe and a working out of some teleology and theodicy of which humans are a part, but not an end.

Richard Wilbur, on the other hand, probes the world and mind with poetry, trying to say the things of the world with an exactness that does not exclude the mystery which mind either makes or finds there. He uses metaphor in the way Dennett describes it, as "a tool for thought" (455). Like Eiseley, Wilbur bears witness to the puzzles of nature and mind--how, in resistance, they make one another as the mind tries to shape the world into completeness and coherence with its tools of words and metaphor and the world resists the sculptor's tools, escaping all concretion and finality, remaining on the

other side of the best metaphors. Like Eiseley, Wilbur also has an exquisite sense of the drive toward being--the biological urge to assume form and assert self in time, an urge so strong that it is capable of the heroics of autumn--accepting the doom of taking shape. Though delighting in an intense awareness, Wilbur recognizes the limitations of consciousness--the narrow world of knowing--and therefore writes poetry on the borderland between consciousness and unconsciousness--the vast world of unknowing, a world vaguely intuited but not yet able to be approximated in words. In the world below consciousness, even the mind itself escapes our daylight understanding and remains as furtive and free as a bat in a dark cave, skillfully eluding the snare of words.

This chapter will be devoted to exploring the conundrums in the nature of nature and the nature of mind as they are represented in the writings of Wilbur and Eiseley. The first task is to try to understand the nature of nature--how, historically, the world became "natural" and what it means to be natural as Eiseley saw it in the context of the twentieth century. The next problem will be to understand the mind as nature. If nature is natural, the mind too is natural--nature-made, a by-product of the same processes that produced the rest of the world. However, even though the origin and being of the mind mimic the origin and being of the cosmos, we humans seem to ourselves "unnatural." Mind is left puzzled, looking for its own reason for being. We seem to have leaped across a great chasm that separates us from other species--out of instinct into

reason, out of an eternal present into time that remembers the past and anticipates the future, out of a limited animal world into a world made much vaster and far more intense by language that allows shared experience and by writing that stores that experience, out of the sensory world of appearances into the counter-intuitive world of science. And life inevitably implies time-boundedness, and mind implies the awareness of time-- its power both to make and unmake. Bound inextricably together, life and time generate counter-urges: the desire to be vaguely vast and eternal competes with the will to take shape in time. Finally, the puzzle comes down to the nature of mind itself. The subject that we would know is our only agent of knowing. We are left trying to turn around quickly enough to catch a glimpse of ourselves.

The Nature of Nature: How the World Became Natural

In The Firmament of Time, Eiseley presents his view of how the world "became natural"--i.e., how human beings gradually came to see the present world as a product of slow evolutionary forces guided by discernible physical laws rather than the product of cataclysmic divine fiat. In western civilization, the predominant Judeo-Christian world-view had limited time and all of history to less than six thousand years since the Biblical creation. Such a compressed time frame required cataclysm to explain the great heaps of boulders that seemed to have been strewn by a Noachian

flood and required miracle to explain the presence and purpose of man among the rest of creation. To break out of this religious/scientific model, human beings had to acquire, through enormous effort, new knowledge and new imaginations to recognize the silent, slow miracles--the tremendous potentialities contained in time and raindrops:

> Men who could visualize readily the horrors of a universal Flood were deaf to the roar of the invisible Niagara falling into the rain barrel outside their window. They could not hear it because they lived in a time span so short that the only way geologic change could be effected was by the convulsions of earthquakes, or the forty torrential days and nights that brought the Biblical Deluge. (FOT 11)

For Christians of the prescientific era, the universe was entirely man-centered--with earth as the focus about which the celestial bodies moved and as "the platform of divine but short-lived drama--a drama so brief that there was little reason to study the stage properties" (FOT 11). Centered upon this drama of man--"his supernatural origins, the drama of his Fall from the deathless Garden, the coming of his Redeemer, and the day of his Judgment"--and accepting the received truths of the past (the Ptolemaic universe, Aristotelean logic, the Platonic ideal), Western men were "busied about their souls, not about far voyages either in space or in time" (11).

Yet, drawn by the innate urge to solve "the mystery of things that are," men began to think their way into a new earth, a new

universe, new concepts of time and space, and new ways to look at life on this planet. A gradual accretion of discovery and deduction reshaped the creation into nature. The work of Copernicus and Kepler and Galileo reoriented the universe; the sun became the center of the solar system with the earth one of several planets revolving about it. Olaus Roemer's observation of a slight lag in the reappearance of one of the moons of Jupiter after an eclipse led to his subsequent deduction that light did not travel instantaneously but at a speed later calculated to be 186,000 miles per second. This discovery then led to the concept of light-years and "to astronomical time the magnitude of which lay beyond human comprehension" (FOT 14). Newton's description of the laws of gravitation depicted a mechanical universe that left miracle out of the process "save at the moment of creation" (15). Subsequent thinkers--Kant and Laplace--extended Newton's laws back into the space that Roemer's observation had made possible and elaborated a nebular hypothesis suggesting that stars and planets had their origins in clouds of rotating gas.

By the mid-eighteenth century, geological evolution began to be discussed along with cosmic evolution. James Hutton accomplished in geology what Newton had achieved in astronomy and mathematics (FOT 18). As astronomers read messages in the sky, Hutton read the message of time in rocks. His emphasis on the dynamics of the earth's crust, its decay and renewal, was similar to Newton's emphasis on the balanced celestial machine that was self-

maintaining. Examining the present earth to understand the past, Hutton "postulated the integration of small events to produce great cumulative ones in geology" (FOT 22). Eiseley says that "[o]ne has the feeling that [Hutton] sensed, on his remote Scottish farm, when frost split a stone on a winter night" (25). Alone among his contemporaries in his understanding of earth dynamics, Hutton considered that "'Nature lives in motion.' Every particle in the world was hurrying somewhere, or was so destined in the long traverse of time" (FOT 25). Though Hutton wrote little about fossils, Eiseley says the geologist "set the scene" for the rise of evolutionary theory fifty years later; he had established geologic evidence for the length of time that the theory of evolution would require. Hutton also articulated the precept that would become the basis of natural science: study forces at work in the present in order to understand the past. Yet he was too wise to limit nature to "'the uniformity of an equable progression.'" He simply considered that the violence and upheaval which could occur in nature were of natural, not supernatural, origins. A convinced eighteenth-century deist, Hutton believed in the sanctity of reason and the undeviating law which he saw directing nature's course (FOT 26).

Thus, based on the work of Newton and Hutton and others, science began to change human concepts of the nature of nature:

> . . . when the Divine Maker was retired from the earthly scene by science, leaving only secondary causes to operate nature for him, men, animals and the celestial and world machines alike were no longer to be quite what they had been in the days of

> supernatural intrusion, of a tampering by the Unseen. Man's world was finally to be completely natural. Yet at the close of the eighteenth century it was still a world considered to be of divine origin and created for human habitation. (FOT 29)

But this paradigm would not last either. Two centuries later, as Eiseley points out, the world would be found to be "without the balance of stabilized perfection" that had comforted the eighteenth-century scientists (29). As concepts of nature changed in the twentieth century, the stability of Newtonian physics would be replaced by contingency, indeterminancy, and relativity.

After expanding time and space to make room to explain the changes evidenced in rocks and fossils and to fit in the much larger Newtonian universe, Eiseley says that the second step in the naturalization of nature was to make death natural. He says that mankind "has tended to take life for granted," but has frequently felt the need to explain death: "Death was the unnatural thing, the result of malice or mistake, the after-message of the gods, or, in the Christian world, the result of the Fall from the Garden" (FOT 33). For the progression of scientific thought, death had to be demythologized; it had to become natural. Time and geologic change make evolutionary change possible; evolutionary change requires species or phylogenetic death. Inevitably, scientific observation conflicted with seventeenth and eighteenth century theology which declared that extinction was impossible because it challenged "the benignity of Providence" and subverted the ordered universe expressed in the *Scala Naturae*--a theory of organic relationships "based on a

gradation which emerged instantaneously at the moment of creation, and which rises by imperceptible transitions from the inorganic through the organic world to man, and even beyond him to divine spiritual natures" (FOT 37).

Eiseley says that this "Ladder of Being" was perceived as an indissoluble chain holding together creation, and the idea that a link could be lost brought horror. Aimless disappearances would suggest a capricious Providence who might forget his creature man. For a while, devout naturalists aware of fossil remains of animals unknown among the living were able to reconcile their beliefs with their observations by presuming that the living representatives of the species had retired to the interior of yet unexplored continents. Deists of the eighteenth century who believed that human reason reflected the Divine and that God could be known through his creation were troubled to explain "the apparent irrationality and waste involved in the discovery of extinction": "Why would a supremely rational God reject and repudiate his creations? . . . if such repudiation occurred, was there not danger that man himself might be swept from the stage of life?" (FOT 42). Eiseley describes the discovery of "[t]he hint of extinction in the geological past" as "a cold wind out of a dark cellar" (43). It threatened the world order constructed specifically for the benefit of man: "a vast and shadowy history loomed in the rocks. It threatened to be a history in which man's entire destiny would lose the significance he had always attached to it" (43).

Hutton's views of cumulative changes in the earth's surface over eons conflicted sharply with the world-view of catastrophism, "the school of violence" articulated by the "transcendental evolutionists" during the first fifty years of the nineteenth century as part of their "geological theology" (LJ 151). "Catastrophism" was a compromise between theology and science which made death and progressive change in the universe acceptable by extending "such mythological events as the world-shattering Biblical Deluge" and by creating "a form of geological prophecy which left man still the dominant figure in his universe" (FOT 44). Catastrophism "predicated vast, unknown and perhaps supernatural forces at work" causing "mysterious geological upheavals and re-creations of life" and seemed more Biblical than the "limitless and invisibly moving landscapes" that Hutton had proposed. Eiseley describes the world-view of the catastrophists in the early part of the nineteenth century:

> The deathless Eden of the Biblical first creation has been replaced by a succession of natural but successive worlds divided from each other by floods or other violent cataclysms which absolutely exterminate the life of a particular age. Divinity then replaces the lost fauna with new forms in succeeding eras. Disconformities in geological strata, breaks in the paleontological record, are taken as signs of world-wide disaster terminating periods of calm. In contrast to eighteenth-century concern over the death of species, and anxiety to establish seemingly extinct animals as still in existence, the natural theologians now revel in violence as excessive as that of the Old Testament. Whole orders of life are swept out of existence in the great march toward man. The stage which awaits the coming of the last great drama has to be prepared.

> Floods destroy the earlier actors. Enormous death demands equally enormous creation . . . (FOT 48).

Instead of worrying about the loss of a single link in the scale of nature, catastrophists saw in the fossil bones of lost species evidence of bursts of new creation following divinely ordained cataclysms--"a universe that progressed in leaps amidst colossal destruction" (FOT 48). Catastrophists saw no phylogenetic links between lost species and those that followed: "There was only the Platonic ideal of pure substanceless form existing in the mind of God" (48).

Catastrophism was a progression of scientific knowledge in that it did recognize that species extinction had occurred and that fossils could be used to separate and distinguish the strata of different geologic ages. Early paleontologists also came to recognize life as an unreturning progression in which old forms were not repeated, but they interpreted this progression teleologically:

> Life did not return upon its track. The record in the book of stone showed no reversals. Life . . . was a historic progression in which the past died totally. But the goal was finalistic--it was man. Even coal forests had been laid down for his use. At times it seemed that the earlier creation existed only as some kind of phylogenetic portent of man. (FOT 49)

In The Immense Journey Eiseley describes the "strange half century" before Darwin's publication of The Origin of Species as "dominated by a generation that saw the world as a complex symbolic system pointing in the direction of man, who was foreknown and prefigured

from the beginning" (LJ 153). Many of the transcendental evolutionists believed the process ended with man, and "no further changes in the world of life" were to be expected.

Thinking began to change, however, when nineteenth-century geologist Charles Lyell discovered not drastic cataclysmic changes in fauna but local sequences of gradual change--"'passage beds'" or strata linking one geological era with another and thereby demonstrating "the essential unity of earth's geological history" (FOT 51). Through Lyell's discoveries, "point extinction," the demise of an individual species, replaced the mass death of catastrophism: "Death . . . was becoming natural--a product of the struggle for existence" (FOT 51). Geological changes producing environmental and climatic changes gave advantages to some forms of life and disadvantaged others. For Lyell this process explained extinction but did not explain how new creation emerged. Embracing Hutton's long time span and insistence on change produced by natural forces, Lyell was left with "the single great mystery"; he had to confront "a perverse unexplainable force that crawled and changed through the strata--life" (FOT 54). Lyell could make death natural but life was harder to explain: " . . . the catastrophists had been right about one thing. From its early beginnings in the seas, life had been journeying and growing in complexity. It is historic" (FOT 54).

In a passage that is a prose poem, Eiseley describes his vision of how a "ghost" entered the inanimate machine, the physical world of force and counterforce. The fierce, inexorable momentum which

began like the whisper of a mouse scurrying in a dark tomb crescendos into a pounding intensity, roaring like a freight-train carrying life through the present and tearing into the future:

> . . . into this world of the machine--this mechanical disturbance surrounded by desert silence--a ghost has come, a ghost whose step must have been as light and imperceptible as the first scurry of a mouse in Cheops' tomb. Musing over the Archean strata, one can hear and see it in the subcellars of the mind itself, a little green in a fulminating spring, some strange objects floundering and helpless in the ooze on the tide line, something beating, beating, like a heart until a mounting thunder goes up through the towering strata, until no drum that ever was can produce its rhythm, until no mind can contain it, until it rises, wet and seaweed-crowned, an apparition from marsh and tide pool, gross with matter, gurgling and inarticulate, ape and man-ape, grisly and fang-scarred, until the thunder is in oneself and is passing--to the ages beyond--to a world unknown, yet forever being born. (FOT 56)

Eiseley says that the discovery of the fossil evidence of "natural" death has cast a shadow over the human spirit; it has complicated life. Recognizing the fossil marks imprinted by the passing of the ghost in the machine has left human beings with a sense of awe and a sense of dread. The thread of life passes through us but also very probably beyond us.

> Since the first human eye saw a leaf in Devonian sandstone and a puzzled finger reached to touch it, sadness has lain over the heart of man. By this tenuous thread of living protoplasm, stretching backward into time, we are linked forever to lost beaches whose sands have long since hardened into stone. The

> stars that caught our blind amphibian stare have shifted far or vanished in their courses, but still that naked, glistening thread winds onward. No one knows the secret of its beginning or its end. Its forms are phantoms. The thread alone is real; the thread is life. (FOT 56)

The feeling is both awe-struck and elegaic; human beings share the realness of the thread as both receivers and as transmitters, but we, like other life forms, are phantoms. Forms live and change, and some disappear completely, but life appears never to bring back the past. Life "seems to have had a single point of origin and to be traveling in a totally unique fashion in the time dimension" (FOT 57).

This rising awareness that life is a prodigious, imperious, uncontainable force whose individual manifestations are always temporary had a positive as well as a negative impact on the human psyche. Eiseley says that in the naturalization of death--the recognition of the random demise of individual species--human beings also began to recognize the random evolution of new species: "By the comprehension of death man was beginning to glimpse another secret. The common day had turned marvelous. Creation--whether seen or unseen--must be even now about us everywhere in the prosaic world of the present" (FOT 58). As death became natural, life became natural--and wondrous.

When the seventeenth- and eighteenth-century faith in the fixed chain of being was challenged by the discovery of the fossil remains of organisms no longer extant, two alternative explanations arose. Progressionism suggested that life progressed from the simple

to the more complex fauna in a process that was designed to lead to man. Ascending fauna would be annihilated by some geological catastrophe; subsequent, more advanced fauna would be created as replacements. The link between those destroyed and the newly created was not direct physical descent--there could be no gene passage--but was "a kind of ideal Platonic morphology"--the forms were connected in the mind of the creator. Evolution, "actual physical descent with bodily alterations from one age to another," became the other alternative whispered about at the end of the eighteenth century (FOT 66). Lamarck recognized that "creatures fitted themselves to the environment they occupied rather than being made for that specific environment" (67). In so doing, Lamarck directly challenged the traditional theological view of "the preordained character of the human emergence" (67).

Tracing the gradual development of the theory of evolution which culminated with Darwin's articulation of the idea of natural selection, Eiseley identifies four necessary antecedents in scientific thought:

1) the realization of the great antiquity of earth, 2) the recognition of "a true geological succession of forms on the planet," 3) the recognition of "the amount of individual variation in the living world and its possible significance in the creation of change," and 4) the replacement of the idea of the world as a perpetually balanced machine by the concept of an organic world of dynamic disequilibriums. "Life had to be seen . . . as subject to 'indefinite

departure'--alteration . . . subject to no return" (FOT 71). A "natural" explanation of life required "a rational explanation of change through the ages" (72). Eiseley argues that the concepts of variation, selection, and the struggle for existence were known before Darwin but that these concepts needed to be seen in the context of a new world view: "It was not really new facts that were needed so much as a new way of looking at the world from an old set of data" (72).

When natural selection was seen to be taking place in a world without balance and a constraining, ordained scale of nature, the potential for change became infinite. The violent potential in a raindrop was seen to be equaled or surpassed by "the violence contained in a microscopic genetic particle" (FOT 81). Eiseley says that life then became unpredictable--a "vast uneasy river . . . spreading into every possible niche." Although the concepts of all life linked as expressions of Platonic ideals existing in the mind of a Creator and of a fixed chain of being seemed illusory after the theory of evolution, Eiseley even so recognizes an "enormous stability" in the categories of life:

> . . . for all this flood of change, movement and destruction there is an enormous stability about the morphological plans which are built into the great phyla--the major divisions of life. They have all, or most of them, survived since the first fossil records. They do not vanish. The species alter . . . but the Form, that greater animal which stretches across the millennia, survives. (FOT 82)

Eiseley finds "curious comfort" in this stability. "It is almost as though somewhere outside, somewhere beyond the illusions, the several might be one" (82).

Eiseley himself is a Platonic idealist--valuing paradigm over particulars. Surveying the multiplicity and variety among crustacea, Eiseley concludes that "[i]t is not the individual that matters; it is the Plan and the incredible potentialities within it. The forms within the Form are endless and their emergence into time is endless" (FOT 84). But is Eiseley's Platonic view right? Is it not the individual that matters? In evolutionary morphology, do universal Platonic Forms exist or can form be known only through an aggregate of individuals? Can form be separated from being? Is form merely an expression of our categorizing minds, with no reality outside human thought? For Eiseley, the individual is part of the greater pattern of its order: " . . . an order of life is like a diamond of many reflecting surfaces, each with its own pinpoint of light contributing to the total effect" (FOT 85). He reverences the effect, and therefore tends to generalize rather than to individualize separate manifestations of the order of life--starfish, fox, orb spider, man. Eiseley seems to find comfort in this abstraction of life, a force depending on no individual or species manifestation for its permanence and efflorescence: " . . . the many-faced animal of which we are one flashing and evanescent facet will not pass with us" (86). Life will continue in other forms. Eiseley's Platonism offers a consolation that Western religion has generally supplied in more personal terms. His concept of pattern

surviving the flux of form, in fact, displays a kinship with the Indian idea of the impermanence of all things but with the unity of Brahman underlying reality and with the Chinese belief that flow and change are essential features of nature but that there are constant patterns within these changes that are discernible by women and men (Capra 88, 105).

As death and then life became natural, so also did human beings become "natural." Eiseley describes "a barren and disordered landscape" of red granite boulders strewn hundreds of miles from their point of origin by the glaciers of the last ice age. Before humans understood that the scattered boulders were the remnants of glacial action, they found it easy to believe in world deluges. Western religious mythology supported the cataclysmic interpretation of events. Looking at the newly understood glacial landscape, Eiseley finds in the scene something "inhumanly remote and terrifying," but in it he also finds the place of man's beginnings:

> Man literally ends here. Beyond lies something morosely violent, of which we have no knowledge, or of which it might be better said that we have a traumatic eagerness to forget. For lurking in this domain is still the nature that created us: the nature of ringing ice fields, of choked forests, or unseasonable thunders. It is the unpredictable nature of the time before the gods, before man had laid hold upon any powers with his mind. It is a season of helplessness that stirs our submerged memories and that causes us to turn back at twilight to the safe road and the lights of town. Behind us whisper the ancient, uncontrollable winds. . . . This is man's place of birth, this region of inarticulate terror . . . . (FOT 90)

The work of other naturalists and his own observations has led Eiseley to a new creation myth in which man's beginning is terrifying and inexplicable. The diction and imagery of this passage are full of mystery and dread--"something morosely violent," "traumatic eagerness to forget," "[nature] lurking," "ringing ice fields . . . choked forests. . . unseasonable thunder," "unpredictable nature," "helplessness," "submerged memories," "twilight," "ancient, uncontrollable winds", and, finally, "this region of inarticulate terror." Ironically, knowledge has led man from a comfortable cosmic myth to the inexplicable and terrifying.

Eiseley identifies two major discoveries which occurred in 1837 and which accelerated the naturalization of man. Before the nineteenth century, most westerners would have agreed with Sedgwick, Darwin's biology teacher, that man had been "'but a few years' dweller on the earth'" and that man had been "'called into being within a few thousand years of the days in which we live by a provident contriving power'" (qtd. in FOT 93). In the nineteenth century, scientists began to find accumulating evidence that contradicted the generally accepted concept of Biblical time. Hugh Falconer's discovery of fossil remains of great apes and other primates in Tertiary beds of Northern India, and Louis Agassiz's recognition of the vast extent of North America and Europe which had been covered by the continental ice fields pushed the date of human emergence much further back into the past. The subsequent

discovery of a heavy-browed human skull along the gorge of the Neander near Dusseldorf, Germany, proved to be the "first relic of the ice age--of a long-vanished world where men and women had endured glacial cold and had struggled for existence armed only with crude spears and sharpened flints" (FOT 104). The broad, low Neanderthal skull, which contained a brain as large or larger than modern man's, forced scholars to extend again the time required for human evolution. In the twentieth century, Dr. L. S. B. Leakey found a "bridge to man" or "near man" in the Olduvai Gorge in Tanganyika. Leakey estimated the age of the remains of this semi-vegetarian toolmaker at two million years.

Given these distant origins in a primitive world where human shades into animal, what can be said of the nature of human nature? Having robbed man of his place in time and creation--a being made in the image of God and just a little lower than the angels--and having reduced his pedigree to being just a little higher than the apes (and having taken some time to reach that rung on the ladder), early paleontologists like Raymond Dart began to speculate on the nature of this ape-descended man. Dart believed that human ancestors were successful carnivores with genetic streaks of sadism and cruelty. In a sanguine mood, Eiseley finds in Dart's view "a touch of disillusionment and distaste . . . projected backward upon the wild era in which the human predicament began" (FOT 114). Eiseley, instead, is moved by evidence that Neanderthals buried their dead with gifts of food and treasures of worked flint and Leakey's

evidence that the "human gesture" of loving burial had been extended back in time a million years from the present. Eiseley concludes that man must partake "both of Darwinian toughness, resilence, and something else, a humanity . . . that runs well nigh as deep as time itself" (FOT 114). Though man has become "natural," his nature escapes him: "perhaps his human freedom has left him the difficult choice of determining what it is his nature to be" (114).

Eiseley believes that Darwin's "dreadful blow" to the human ego--demonstrating "man's physical relationship to the world of lower animals"--also invites a sense of cosmic isolation and alienation. Darwin's discoveries ensure the absolute uniqueness of complicated life forms and destroys the concept of geologic prophecy:

> . . . once undirected variation and natural selection are introduced as the mechanism controlling the development of plants and animals, the evolution of every world in space becomes a series of unique historical events. The precise accidental duplication of a complex form of life is extremely unlikely to occur in even the same environment, let alone in the different background and atmosphere of a far-off world. (IJ 158)

Assuming undirected variation and natural selection, Eiseley concludes that "man is a solitary and peculiar development" (IJ 158). The unity found in life forms results from "biological descent with modification." No formal pattern was imposed from without and life is "adjustable, not fixed" (IJ 160). Eiseley describes the evolution of life through many modifications along paths that can never be

retraced. He declares that "[e]very creature alive is the product of a unique history" and says the statistical probability of its "precise reduplication" elsewhere in the universe is "so small as to be meaningless" (IJ 160). This uniqueness shared by every creature becomes a particular burden for human beings because we, seemingly unlike all others, can know our loneliness:

> In a universe whose size is beyond human imagining, where our world floats like a dust mote in the void of night, men have grown inconceivably lonely. We scan the time scale and the mechanisms of life itself for portents and signs of the invisible. As the only thinking mammals on the planet--perhaps the only thinking animals in the entire sidereal universe--the burden of consciousness has grown heavy upon us. (IJ 161)

We search the stars for a possible future and rummage among the bones of the past in an attempt to understand our origins. We torture ourselves with the possibility that the wandering path has some yet-to-be-discovered meaning. Though there may be creatures of wisdom and power and yearning elsewhere in space, Eiseley concludes that according to the nature of life and the prinicples of evolution, "nowhere in all space or on a thousand worlds will there be men to share our loneliness" (162).

Over the last few hundred years, human concepts about the world of nature have undergone dramatic changes. Technology has so enhanced our senses that "the phenomenal world, previously explored with the unaided senses, has undergone tremendous

alteration in our minds" (FOT 118). With ever-more-powerful telescopes, misty lights become a galaxy; with ever-more-powerful microscopes, the previously unseen becomes "a cosmos of both beautiful and repugnant life, while the tissues of the body have been resolved into a cellular hierarchy whose constituents mysteriously produce the human personality" (118). Like microscopic and intergalactic space, time also has expanded enormously into the before unimagined dimensions of the past, and "even its dead, forgotten life has been made to yield remarkable secrets" (118). Yet, Eiseley sees that this greatly enlarged awareness and knowledge have not been so comforting as the old myths of a smaller universe created just for man and man created to be its center and the comfort of a lonely God. Eiseley uses an Elizabethan stage metaphor to describe the quandry of twentieth-century humanity:

> . . . the world stage where the Elizabethans saw us strutting and mouthing our parts, has the skeletons of dead actors under the floor boards, and the dusty scenery of forgotten dramas lies abandoned in the wings. The idea necessarily comes home to us then with a sudden chill: What if we are not playing on the center stage? What if the Great Spectacle has no terminus and no meaning? What if there is no audience beyond the footlights, and the play, in spite of bold villains and posturing heroes, is a shabby repeat performance in an echoing vacuity? (FOT 118-119)

We are left to wonder if the human drama is a comedy with much ado about nothing or a tragedy full of sound and fury but signifying nothing.

Why does it matter how we see nature? Because what we are depends on what nature is, and what nature is depends on what we are. Eiseley finds humans to be "mentally structured to look within as well as without and to be influenced within by what we consider the nature of the 'without' to be" (FOT 119). Thus, for Eiseley, the "without" and our means of apprehending it assume a pressing importance. Characters' interpretations of their parts may affect the plot of nature:

> Strange colorings have been given to reality and the colors have come mostly from within. As science extends itself, the colors, and through them the nature of reality, continue to change. The 'within' and 'without' are in some strange fashion intermingled. Perhaps, in a sense, the great play is actually a great magic, and we, the players, are a part of the illusion, making and transforming the plot as we go. (FOT 120)

Eiseley concludes that the cosmos itself is like Jean Cocteau's description of the theatre--"'a trick factory where truth has no currency.'" On "an infinitely greater scale" than the theatre, the cosmos tricks the observer with a "a set of lights forever changing, and . . . actors themselves shape shifters, elongated shadows of something above or without" (IP 119). Thus, Eiseley considers that the word "natural," in the sense it is normally used, has no meaning, no concrete referent: "Perhaps . . . there is really nothing at all natural in the universe or, at best . . . the world is natural only in being unnatural, like some variegated, color-shifting chameleon" (119). And humankind is as unnatural as the cosmos: "Man is no

more natural than the world." He himself creates the "phantom universe" of culture--"a formidable realm of cloud shapes, ideas, potentialities, gods and cities, which with man's death will collapse into dust and vanish back into 'expected' nature" (IP 120).

Eiseley says that "we must come to understand that learning is endless and that nowhere does it lead us behind the existent world" (FOT 160). As a "two-handed manipulator" with an insatiable desire for "mastery over the materials of his environment," man has "projected himself outward upon his surroundings in a way impossible to other creatures," and has succeeded in piercing "so deeply through the screen of appearances that the age-old distinctions between matter and energy have been dimmed to the point of disappearance" (FOT 158-159). In some cases, man has learned so much that he has frightened himself. Eiseley tells the story of a "distinguished scientist . . . in his declining years" who developed a fear of "falling through the interstices of that largely empty molecular space which common men in their folly speak of as the world" (FOT 153). The very concept of the natural world which he had helped to develop--galaxies made up of electron clouds separated by light year distances mimicking the smaller electron galaxies of matter that we call the world--had taken him prisoner. The old scientist began to fear falling through those spaces his own imagination had helped to identify: "All around him the ignorant rushed on their way over the illusion of substantial floors, leaping, though they did not see it, from particle to particle, over a bottomless

abyss" (153). Since, in the twentieth century, matter and energy have become virtually indistinguishable, the elderly physicist was left with uncertainty about even the material reality of the very particles themselves.

In a surer time, in the seventeenth century, John Donne had described nature as "'the common law by which God governs us'" and had described miracle as "'God's Prerogative'" to over-rule that common law (qtd. in FOT 157). While ironically observing that "the laws of nature have a way of being altered from one generation of scientists to the next," Eiseley defines miracles as "an event transcending the known laws of nature" (171). Reviewing the gradual evolution of life and of the conscious, searching mind, Eiseley concludes that " . . . nature itself is one vast miracle transcending the reality of night and nothingness" and that " . . . each one of us in his personal life repeats that miracle" (FOT 171). That is, man is nature; nature is miracle; man is miracle. Some mysterious power changes the "dead, quiescent and unmoving" dust so that it becomes muskrat and poet and astronomer. That life should animate an assemblage of inert chemicals "may be the greatest chance of all, the most mysterious and unexplainable property in matter" (172). For Eiseley, the unreverenced small realities of the common day are the unnaturals of nature:

> Whatever may be the power behind those dancing motes to which the physicist has penetrated, it makes the light of the muskrat's world as it makes the world of the great poet. It makes, in fact, all of the innumerable and private worlds which

> exist in the heads of men. There is a sense in which we can say that the planet, with its strange freight of life, is always just passing from the unnatural to the natural, from the Unseen which man has always reverenced to the small reality of the day. (FOT 171)

And man--a "walking ape" who has come to "watch the red shift of light beyond the island universes"-- is as unnatural as the rest of nature:

> . . . [man] stands at the point where the miraculous comes into being, and after the event he calls it 'natural.' The imagination of man, in its highest manifestations, stands close to the doorway of the infinite, to the world beyond the nature that we know. Perhaps, after all, in this respect man constitutes the exertion of that act which Donne three centuries ago called God's Prerogative. (FOT 179)

Yet man is a miracle with a dark side. Man himself is the greatest threat to the world made natural--himself included. Eiseley remembers what Pascal said of the human capacity to desacralize what was once ordained and holy: "'There is nothing we cannot make natural . . . there is nothing natural which we do not destroy'" (qtd. in FOT 159).

The Mind as Nature

If nature is natural--whatever natural means--and man is natural, then the human mind itself is one of the many manifestations of nature. Trying to explain how matter came to

make a mind, how mind evolved out of matter, Eiseley affirms Thoreau's anticipation that "'thought must live with and be inspired with the life of the body'" (qtd. in MAN 59). In his first book, Eiseley traces The Immense Journey, the slow evolution of human consciousness as one of the late efflorescences (not, however, culminating or final) of life on our four-billion-year-old planet. Water was our source, the mother element of all life: "Turtle and fish and the pinpoint chirpings of individual frogs are all watery projections, concentrations--as man himself is a concentration--of that indescribable and liquid brew which is compounded in varying proportions of salt and sun and time" (IJ 20). Even though other elements are more numerous on earth's crust, our bones are made of calcium, carbonate of lime: "Our history is the reason--we came from the water. It was there the cells took the lime habit, and they kept it after we came ashore" (IJ 6). And of water are we still: "As for men, those myriad little detached ponds with their own swarming corpuscular life, what were they but a way that water has of going about beyond the reach of rivers?" (IJ 20). Quoting the French physiologist Bernard in his story of creation, the evolutionist offers the biological equivalent of the theological gift of free will--"'the stability of the interior environment is the condition of free life'" (qtd. in IJ 42):

> . . . All of the tremendous differences between living forms have been achieved only by the elaboration of devices for the maintenance of that inner nourishing liquidity in which cells

> can live and grow within a certain narrow range of tolerance. . . .
>
> The drifting cell masses of the early ocean lived in a nutrient solution. Salt and sun and moisture were accessible without great mechanical elaboration. It was the reaching out that changed this pattern, the reaching out that forced the cells to bring the sea ashore with them, to elaborate in their own bodies the very miniature of that all-embracing sea from which they came. (IJ 42-43).

All human choice is dependent upon the biological freedom that we are "'walking sacks of sea water.'"

In water life began and from water life crawled upon the land. In his essay "How Flowers Changed the World," Eiseley describes how planet Earth--once only the colors of rock, sand, and dust-- came to twinkle with a greener light:

> . . . Out of the vast chemical broth of the sea--not from the deeps, but from the element-rich, light-exposed platforms of the continental shelves--wandering fingers of green had crept upward along the meanderings of river systems and fringed the gravels of forgotten lakes.
>
> In those first ages plants clung of necessity to swamps and watercourses. . . . The green marchers had gained a soggy foothold upon the land. (IJ 62).

Wilbur, in his poem "Fern-Beds in Hampshire County," uses imagery similar to Eiseley's to describe the march of plant life out of the green sea onto the land. Eiseley's "green marchers" become Wilbur's "green infantry":

> . . . let the wind grow bluff, and though
> The sea lies far to eastward, far below,
> These fluent spines, with whipped pale underside,
> Will climb through timber as a smoking tide
> Through pier-stakes, beat their sprays about the base
> Of every boulder, scale its creviced face
> And, wave on wave, like some green infantry,
> Storm all the slopes as high as eye can see. (Poems 125)

Wilbur suggests that the "airy plants" of the present-day fern-beds in Hampshire County repeat "an ancient conquest . . . / As when they answered to the boomed command / That the sea's green rise up and take the land" (Poems 125-126).

Emphasizing "the enormous interlinked complexity of life," Eiseley describes the evolution of the green world as a necessary prerequisite to the development of animal, including human, life. He tells of the "soundless, violent explosion" lasting a million years that changed the face of the planet. During the Cretaceous period, just before the close of the Age of Reptiles, angiosperms, the flowering plants, appeared: "Even the great evolutionist, Charles Darwin, called them 'an abominable mystery,' because they appeared so suddenly and spread so fast" (IJ 63). In the sequence of creation, Eiseley writes that "the appearance of the flowers contained also the equally mystifying emergence of man" (64):

> A high metabolic rate and the maintenance of a constant body temperature are supreme achievements in the evolution of life. They enable an animal to escape, within broad limits, from the overheating or chilling of its immediate surroundings, and at the same time to maintain a peak mental efficiency.

> The agile brain of the warm-blooded birds and mammals demands a high oxygen consumption and food in concentrated forms, or the creatures cannot long sustain themselves. It was the rise of the flowering plants that provided that energy and changed the nature of the living world. Their appearance parallels in quite surprising manner the rise of the birds and mammals. (IJ 64-66)

Eventually, as a result of the tremendous production of seeds and fruits by flowering plants, *homo sapiens* evolved from hominid ancestors: "The weight of a petal has changed the face of the world and made it ours" (IJ 77). In the world of living things prior to the concentration of food energy in flowering plants, "nothing saw save with the intense concentration of the hunt, nothing moved except with the grave sleepwalking intentness of the instinct-driven brain" (64). Millennia later, however, the tormented intelligence and imagination that painted *The Sunflowers* had been made possible by the sunflowers themselves. Van Gogh's troubled, creative mammalian brain was able to evolve because eons of animal life had fed on the concentrated energy of the seed cases of angiosperms.

None of this came easily, however. For Eiseley, nature is no gentle midwife; she drags new life painfully into being. Life came ashore from the water not In a "magnificent march through the breakers and up the cliffs"; instead, life--"the failures of the sea"--came ashore "in the swamps of inland waterways and along the tide flats of the estuaries where rivers come to the sea," making a stealthy advance "in suffocation and terror, amidst the leaching bite

of chemical discomfort" (IJ 54). And nature has shown no loyalty to past favorites. The dominant species of one era does not breed the dominant master-type of the next geological era. The "law of the unspecialized" favors the "lowly and generalized animals . . . capable of making new adaptations, and . . . not narrowly restricted to a given environment" (IJ 55). Marginal situations and encroachment by enemies push life into new dimensions. As Wilbur writes in "Marginalia," "Our riches are centrifugal": "Things concentrate at the edges; the pond-surface / Is bourne to fish and man . . . " (266).

Wilbur, in fact, embraces a view of nature's rigors that is similar to Eiseley's. In his poem "Orchard Trees, January," Wilbur disavows an easy, romantically benignant ideal for nature. Watching bare trees blown about by the blizzard winds of a world deep in January winter, Wilbur denies any snugness that dreamy watchers would project on the scene:

> It's not the case, though some might wish it so
> Who from a window watch the blizzard blow
>
> White riot through their branches vague and stark,
> That they keep snug beneath their pelted bark.
> (Poems 27)

Instead, the orchard trees respond as Emily Dickinson might if she were among them:

> They take affliction in until it jells
> To crystal ice between their frozen cells,

> And each of them is inwardly a vault
> Of jewels rigorous and free of fault
> (Poems 27)

That icy hard, inward treasure-making is "[u]nglimpsed by us" until spring harvests winter's treasure: In May, each winter-frozen orchard tree bears its affliction in "A sudden crop of green-pronged solitaires" (27).

Using his knowledge of the past to describe the earliest developments in the evolution of the human brain, Eiseley spins a creation myth which portrays how change comes out of desperation and an agonizing struggle to survive. He says that the brain "began as such things always begin--in the ooze of unnoticed swamps, in the darkness of eclipsed moons. It began with a strangled gasping for air" (IJ 49). The place of the brain's beginnings was a dying pond:

> The pond was a place of reek and corruption, of fetid smells and oxygen-starved fish breathing through laboring gills. At times the slowly contracting circle of the water left little windrows of minnows who skittered desperately to escape the sun, but who died, nevertheless, in the fat, warm mud. It was a place of low life. In it the human brain began. (IJ 49-50)

The time of its beginning was three hundred million years ago when "[d]ust storms marched in incessant progression across a wilderness whose plants were the plants of long ago," in a time of dizzying change (50). In a doomed pond--the water fouled and oxygen-deprived--a creature labored to breathe air directly "through a little

accessory lung." It was the only creature in the lifeless landscape that could walk: "It walked rarely and under protest, but that was not surprising. The creature was a fish" (50). The "Snout," as Eiseley calls it, survived by hobbling downstream "on the stumps of heavy fins" to another pond. The journey of this lung-fish was "best not observed in daylight, it was something that needed swamps and shadows and the touch of the night dew" because this fish's journey on land was "a monstrous penetration of a forbidden element . . ." (51). In three hundred million years, Eiseley says this face averted from the light would become our own. The lung-fish was a driven and desperate failure living in the swamp and tide flats where "strange compromises are made and new senses are born" (51). For the cumbersome and plodding Snout, a fresh-water Crossopterygian, "something had happened back of his eyes. The ooze had gotten in its work" (52). The ooze-marked brain of the Snout was fermenting into something "no longer entirely a fish."

Eiseley explains how the human brain and the complexities of thought depended on the drying swamp and the air-hunger of a Devonian fish. Without the "green quagmire" out of which the Snout came, we might never have existed or we might have developed as mammalian insects with solid brains, "our neurones wired for mechanical perfection, our lives running out with the perfection of beautiful, intricate, and mindless clocks" (52). The development of the human brain depended on the appearance of two thin-walled bubbles at the end of the Snout's small brain. The Snout developed a

tiny brain that was essentially a thin-walled tube fed on the peripheral surface by a myriad of blood vessels and on the central surface by the vessels of the enlarged choroid plexuses. If the Snout had possessed the solid brain of the fishes living in highly oxygenated waters, it would not have survived the pond's drying. In addition, if the Snout had not evolved the thin, tubular brain with the two hemispheric bubbles but had instead developed the thickened, solid brain, human kind would have lost its necessary hollow-brained progenitor and the road to higher consciousness: "There is a mystery about those thickenings which culminate in the so-called solid brain. It is the brain of insects, of the modern fishes, of some reptiles and all birds. Always it marks the appearance of elaborate patterns of instinct and the end of thought" (IJ 53). Eiseley says those tiny bubbles of the lung-fish not only allowed the Snout to survive but also allowed the area upon which higher correlation centers could be built to spread: "Wherever . . . the thin sheets of gray matter expand upward into the enormous hemispheres of the human brain, laughter, or it may be sorrow, enter in. Out of the choked Devonian waters emerged sight and sound and the music that rolls invisible through the composer's brain" (IJ 53-54). The Snout, the "bog-trapped failure," had unknowingly become "the first vertebrate to pop completely through the water membrane into a new dimension. His very specializations and failures, in a water sense, had preadapted him for a world he scarcely knew existed" (IJ 56).

Wilbur's poem "Lamarck Elaborated" affirms the evolutionary principle that creatures are products of their environment, that organs and capabilities develop in response to environmental pressure. Wilbur insists that "Out of our vivid ambiance came unsought / All sense . . ." and then wonders what made the mind (Poems 243).[3] "Lamarck Elaborated" expands upon a quotation from the French biologist Jean-Baptiste Lamarck who believed that interaction with the environment produced changes in organisms which could then be passed on genetically. Wilbur uses Lamarck's assertion "'The environment creates the organ'" as an epigraph to the poem. Lamarck himself is not mentioned except in the title of the poem.

In the opening stanza, Wilbur contradicts an ancient Greek concept that seeing occurs when visual rays from the eye strike an object in the environment:

> The Greeks were wrong who said our eyes have rays;
> Not from these sockets or these sparkling poles
> Comes the illumination of our days.
> It was the sun that bore these two blue holes.
> (Poems 243)

In his book Catching the Light: The Entwined History of Light and Mind, Arthur Zajonc recounts the early Greek concepts of how seeing occurred. Empedocles believed that Aphrodite had fitted "marvelous passages" into the eye allowing it "to transmit a fine interior fire through the water of the eye and out into the world . . . . Sight

proceeded from the eye to the object seen; the eyes rayed out their own light" (20). Zajonc says that in Plato's account of vision, the light of the eye also "played fully as important a role as the light of the sun," the two lights coming together to mediate between man and the dark of the external world. Zajonc writes:

> According to Plato, the fire of the eye causes a gentle light to issue from it. This interior light coalesces with the daylight, like to like, forming thereby a single homogeneous body of light. That body, a marriage of inner light and outer, forges a link between the objects of the world and the soul. It becomes the bridge along which the subtle motions of an exterior object may pass, causing the sensation of sight. (Zajonc 21)

Thus, according to Empedocles and Plato, the light of the eye shared equally with the sun the power to make the external world visible.[4]

Wilbur denies the power the Greeks attributed to the eyebeam and says that instead of our making the world with our seeing, the stimulations of the world call out our senses--sight, hearing, smell, taste, and touch:

> It was the song of doves begot the ear
> And not the ear first conceived of sound:
> That organ bloomed in vibrant atmosphere,
> As music conjured Ilium from the ground.
>
> The yielding water, the repugnant stone,
> The poisoned berry and the flaring rose
> Attired in sense the tactless finger-bone
> And set the taste-buds and inspired the nose.
> (Poems 243)

Thus, according to Wilbur, the senses are nature-made whether the forces of nature are accommodating or hostile. Both the "yielding water," a fluid that accepts the shape of its container, and the "repugnant stone" (repugnant having its archaic meaning of making or offering resistance, hostile) shape the perceiver. The word "tactless" in the phrase "tactless finger-bone" also returns to its origins, taking its meaning from the archaic denotation of "tact"--the sense of touch, feeling (derived from the Latin *tactus*). Using the archaic meanings of the words repugnant and tact underscores the process of change. Like the senses, words evolved; the form preserves the historical meaning even though the current usage has changed. The "tactless finger-bone," both senseless and insensitive, learned both sensation and sensibility from the soft water and resistant stone. Similarly, the "poisoned berry" educated the palate--"set the taste-buds"--and the "flaring rose . . . inspired the nose." The animating fragrance of the rose "inspires" the nose to breathe in, to take air into the lungs--not just for the necessary oxygen, but for the sensory delight of its perfume. Thus, Wilbur concludes that our senses do not make the world but instead the world makes our senses.

Wilbur finds, however, one exception to the world-created senses:

> Out of our vivid ambiance came unsought
> All sense but that most formidably dim.

> The shell of balance rolls in seas of thought.
> (Poems 243)

The vividness of nature stimulated the development of all senses except the one "most formidably dim." The "sense . . . most formidably dim" is ambiguous. Does it mean the sense of balance whose organs of control are invisible and autonomous, not subject to the conscious mind and which describes not the exterior world but the organism's position and stability or instability within the surrounding world? Or does "sense . . . most formidably dim" have a broader meaning? "Sense" can refer to signification, meaning, something to be grasped; it can refer to a mechanism or faculty of perception. Sense can also mean consciousness, instinctive comprehension, or a vague and unanalyzable but persistent awareness or feeling. Sense, in its broadest meaning, refers to the mind, sentience, or intelligence. Is it, perhaps, the consciousness, the mind, which is "most formidably dim"--dim suggesting both something that emits a limited or insufficient amount of light and something seen indistinctly, without clear outlines or details? Nietzsche found the consciousness "formidably dim":

> 'Consciousness is the last and latest development of the organic, and is consequently the most unfinished and least powerful of these developments. Every extension of knowledge arises from making conscious the unconsciousness. The great basic activity is unconscious. For it is *narrow*, this room of consciousness.'
> (qtd. in Koestler, The Act of Creation 153)

Dependence on this sense, consciousness, keeps us in the dark of what is known, isolated from the unknown, "the great basic activity of the unconscious." The "sense . . . most formidably dim" is unlike the other senses in another way. Taste, smell, sight, touch, and hearing came "unsought"--conjured like Ilium from absence to give nature her due regard. The sixth and extra-sense came differently, by inference, *desired* rather than "unsought."

In the last two lines of the fourth stanza, Wilbur plays with the concept of "balance" in the sense of mental as well as physical equilibrium.

> The shell of balance rolls in seas of thought.
> It was the mind that taught the head to swim. (243)

Wilbur may be mistakenly referring to the snailshell-like cochlea as the "shell of balance." The cochlea, the last structure deep within the inner ear, is actually an organ of hearing; the semi-circular canals along with the utricle and saccule in the vestibule of the inner ear are the organs of balance.[5] If one can overlook the mistake of function, the shell of balance rolling in seas of thought (the brain) conveys aptly the sense of precarious and dynamic balance. Physically, the mind interprets the signals from the labyrinthine organs and in some cases "teaches the head to swim"--causes vertigo. Also, the mind in the complexities and perplexities of conscious and unconscious thought creates a roiling sea in which mental balance becomes difficult. Sense data can become confused, its reliability

suspect; what is imagined seems more true that what is putatively real. Thought becomes an ocean of disequilibrium. Though, as Harth suggests in The Creative Loop, natural science is a way of seeking a bond with the cosmos through knowledge, human beings can, on the other hand, become oppressed with the burden of what is known (Harth xix). Scientific discoveries challenge long-held understandings about the nature of the universe and inflict on us an awareness of the existence of worlds we cannot ever know: "Newton's numbers set to cosmic lyres"--his application of the infinitesimal calculus to the laws of planetary motion--"Whelmed us in whirling worlds we could not know" (Poems 243).

Continuing the metaphor begun with the shell of balance rolling in seas of thought, Wilbur concludes that some other sense beyond the senses has kept us off-balance, stumbling about, following the lure of a Siren-song:

> And by the imagined floods of our desires
> The voice of Sirens gave us vertigo.
> (Poems 243)

As nature's demands for witness called forth the perceiving senses, our desires, our longings for union with something outside ourselves are manifested in "imagined floods." We imagine the turbulent seas where imagined Sirens sing us into vertigo. If the five senses grew vivid in response to the ambiance of the natural world, did some unknown call forth the imagination and the interior world of

consciousness? As nature called forth the senses to bear witness, do we conjure up some witness to give us due regard? Do our longings for something more, something beyond that which we perceive, inspire us to create imaginatively the hazards upon which we founder? Or, is there something yet undiscovered or unrecognized that--like the rose, the water, the stone, the sun, the song of doves--calls forth the imagination to "sense" it? Or, does our need for coherence, some self-referential explanation for all that is, project an unknown--for which we must then search--into the universe? If all the mysteries were solved, would that be the end of mind?

In his book Consciousness Explained, Dennett describes human consciousness as "just about the last surviving mystery," but he believes that the mystery does not need to be protected from science. Dennett suggests that the eventual demystification of consciousness will have an effect similar to the scientific explanations of cosmology and cell replication:

> We find no diminution of wonder: on the contrary, we find deeper beauties and more dazzling visions of the complexity of the universe than the protectors of mystery ever conceived. . . . When we understand consciousness--when there is no more mystery--consciousness will be different, but there will still be beauty, and more room than ever for awe.
> (Dennett 25)

Dennett presumes that current theories of cosmology and cell replication are final resolutions of long-standing mysteries rather than introductions to new mysteries. He is right that knowledge has

given us more cause for wonder, but that is, in part, because knowledge brings with it ever-new mysteries. In fact, twentieth-century science has discovered an inherent, minimal degree of uncertainty (Planck's constant) in knowing the universe, in measuring the location and velocity of any particle. Heisenberg's uncertainty principle, which Steven Hawking calls "a fundamental, inescapable property of the world," underlies the theory of quantum mechanics and introduces "an unavoidable element of unpredictability or randomness into science" (Hawking 56).

In addition to this basic uncertainty at the foundation of modern science, there are questions science does not attempt. Science does not consider metaphysical problems like Heidegger's "question of questions": "Why is there any Being at all--why not far rather Nothing?" (Existence and Being 380). In the face of such a question, Stephen Hawking observes that the values of "many fundamental numbers, like the size of the electric charge of the electron and the ratio of the masses of the proton and the electron" seem to have been "very finely adjusted to make possible the development of life." Hawking says that most other sets of values could also give rise to universes but not, he believes, to intelligent life: " . . . although they might be very beautiful, [these universes] would contain no one able to wonder at that beauty" (Hawking 125). Another scientist might observe that intelligent life was able to evolve simply because the numbers happened to be what they are, not because cosmogenesis and evolution had any supernatural

guidance. However, with or without intention on the part of some transcendent force, life on earth *has* evolved human consciousness to be a seeker after understanding and "a giver of due regard." The mind has taught the head to swim in the sense of a dizzy wonder but also in the sense of a struggle against the current toward the alluring unknown.

Both Wilbur and Eiseley share a sense that man is "a shadow come out of the past," inextricably connected to, yet irrevocably separated from, the life forms which preceded the human species and from which and through which human DNA has gradually evolved. Despite the interconnectedness of the web of life and humankind's vast inheritance from precedent life, we human beings are isolated in our own cognitions; our sense perceptions, reasoning, and imagination have not only individual but species limitations; thus, we must work constantly at an awareness of our inevitable solipsisms. Yet, it is also true that only through our sensory awareness, reason, memory, and, most of all, our imaginations that we can know the things of this world.

Ironically, the perceptive organs of our senses which have been called forth by the environment and which make it possible to know the world also effectively separate us from it. To see like a human means not to see the world as it is perceived by an insect, a bird, a dog. We have forgotten the evolutionary stations along our way. Using a frayed length of rope as his visual aid, Eiseley the

teacher tries to tell his students that "this is the way we came, the way/ of the invisible rope / in the beginning cast / somewhere in the Devonian darkness or below" (NOA 108). He tells them:

> . . . there was a similar rope
> as loosely frayed
> that bound them to the past,
> a rope that somewhere ran
> to an old salt-oozing eye
> in the deep sea,
> and that strange eye
> still stared from underneath their brows
> full at me,
> just as the interlocked vertebrae of their dextrous spines
> was long ago
> a fish's gift
> just as
> their lungs had labored gasping in a swamp
> to serve a fish's needs (NOA 105)

These frayed strands of "The Rope" which had served diverse times and needs "in sea and swamp and forest" had "twisted finally / into our living substance, hidden in ourselves / that code of DNA, / that secret spiral ladder made up of bits and pieces of / that past that never dies but lives entwined in us" (NOA 105).

Though we are bound to other species by our shared evolutionary heritage, we are also separated by the species differentiation that raises insuperable barriers between us. Eiseley, in his poem "Magic," which tells of a long-term, symbiotic relationship with cardinals who learned how to teach the man to feed

them, speaks of his love of forms beyond his own and his regret for the unbreachable otherness that separates him from them:

> I have lived much among animals
> in a small way,
> bartering food for information,
> trying to discern
> whether the bright flame in the mind of man
> is at all matched
> in fur or feather
> for I
> love forms beyond my own
> and regret the borders between us.
> (NOA 65)

Human beings can try to reach imaginatively across the barriers of neurophysiology, cognition, and instinct, but, in the end, the imagination itself is tethered by the wonderful otherness of the human brain.

In his poem "Trolling for Blues," Richard Wilbur portrays human contact with the otherness of a bluefish. "We" try to anthropomorphize the external world by endowing it with human attributes, making the tern "dapper," the sole cloud "like a slow-moving embryo," and the fish "keen"--each a mirror of our kind. The fish, "[w]hom fight and beauty have endeared to us," becomes an object of conception, a product of the imagination: "How clearly, musing to the engine's thrum, / Do we conceive him as he waits below." Yet this clarity of conception comes only with setting aside all in the blue's behavior that is so mystifyingly unclear, so

nonhuman--"His unreflectivenesss, his flings in air, / The aberration of his flocking swerve / To spawning-grounds a hundred miles at sea" (Poems 29). Deep in his genomes the fish harbors patterns of behavior and instincts that escape anthropomorphizing; they affirm his very nonhuman otherness. The "mind's blue eye" imagines the bluefish "in the water's blue, which is the shade / Of thought." The narrowness of the human perspective is like a visual spectrum limited to blue; the perceiver sees with his blue eye a blue fish in blue water. The water's blue, however, is the "shade" of thought--both the color of thought and the darkness which imagination cannot penetrate.

In the "scintillating flux" of blue water--mesmerizing and deceptive--the fish is imaginatively caught: "Poised, weightless, all attention, yet on edge / To lunge and seize with sure incisiveness." To the mind's eye, "[h]e is a type of coolest intellect" until suddenly the blue asserts its otherness: "He strikes and runs unseen beneath the rip, / Yanking imagination back and down / Past recognition to the unlit deep." Suddenly the fish escapes the man's conceiving, "strikes and runs." The rip is an extent of rough, broken water caused by the meeting of cross currents or tides. In the poem it is also the rough water of the imagination, broken and stirred by the sudden recognition of a reality, an otherness which exists outside its dominion and understanding--man meets fish. In a punning sense, it is also a rip in the fabric of the poet's conceptualizing and a fracturing of the "mirror of our kind."

The fish "runs unseen" back and down into the unlit deep "Of the old darkness of Devonian dream / Phase of meditation not our own." The Devonian period occurred during the Paleozoic Era, after the Siluran and before the Carboniferous; it was marked by the dominance of the fish. Thus, the bluefish yanks the imagination back into a "[p]hase of meditation not our own." Ironically, the man has been caught by the fish. What Wallace Stevens called "the lure of the real" has hooked him and pulled him into the blue domininon of the fish. He is drawn back to a place in time that antedates the imagination--"That long melee where selves were not." Though the life of that Devonian dream is in human terms, preconscious--"merciless, painless, sleepless, unaware"--it is not irretrievably alien and outside us. Indeed, it is inside us, the home in time "[f]rom which . . . unthinkably we rose" as well as the dark sea of our own unconscious or preconscious minds. Humankind--reflective, musing, conceiving, attentive, imaginative, cognitive--comes "unthinkably" from that life so unaware. The mysterious Devonian sea, past recognition, is the place from which we came and from which we come now. Teilhard de Chardin in The Phenomenon of Man emphasizes the presence of whatever *is*--including human thought--since the beginning of the evolutionary process: "In the world, nothing could ever burst forth as final across the different thresholds successively traversed by evolution (however critical they be) which has not existed in an obscure and primordial way" (71).

Thought and imagination evolved out of the unthinking and continue to evolve out of that dark abyssal sea, the private depths of self which we cannot plumb with the conscious mind. Bruce Michelson describes the imagination's fight with "something different, primordial, a consciousness either inscrutable or simply not here at all":

> The 'shade of thought,' as the middle-dark in which consciousness can troll, fancying, and fancying itself to be getting somewhere in understanding the world's depths, gives way now to the 'old darkness of Devonian dream'--an unknowable blackness too far back in history, and too far down in one's own mind, down in the place where 'selves were not,' and life was utterly unlike life as we understand or dream it. (Michelson 59).

The "lure of the real" has led the poet to an encounter with otherness not only outside himself--the bluefish that escapes his conceiving--but also the otherness within--the blue water of thought that shades into the darkness where consciousness cannot follow. As we have discovered the vastness of sidereal space, we have also learned, Eiseley says, that " . . . the spaces within stretch as far as those without" (IP 82).

Eiseley calls the human brain "the most remarkable creation in the world" (IJ 94). He says that it appears that man acquired the essential features of a modern brain within the recent geological past--five hundred thousand to one hundred and fifty thousand

years ago--and that the process of brain change was "surprisingly rapid" (IJ 118). For man to evolve, four things had to happen simultaneously. The brain had to triple in size, but the change had to occur after birth rather than before. Childhood had to be lengthened to allow the lost instinctive responses to be replaced with learned behavior. Family bonds had to be extended beyond the limit of the mating season so that the smarter but more defenseless child could have a protected period of maturation. Eiseley says the dizzying spectacle of rapid brain growth was complex and many-sided and whatever "touched it off is hidden under the leaf mold of forgotten centuries" (IJ 123). Eiseley believes that the selective forces that promoted the rapid brain growth were not competition among humanoid groups but forces which "lay essentially in the nature of the socio-cultural world itself" (IJ 120). Eiseley speculates that a "strange reduction of instincts in man in some manner forced a precipitous brain growth as compensation" thereby compelling man to struggle to build about him "a world of ideas to replace his lost animal environment" (IJ 92-93).

> He was becoming something the world had never seen before--a dream animal--living at least partially within a secret universe of his own creation and sharing that secret universe in his head with other, similar heads. Symbolic communication had begun. Man had escaped out of the eternal present of the animal world into a knowledge of past and future. The unseen gods, the powers behind the world of phenomenal appearance, began to stalk through his dreams. (IJ 120).

Thus, man crossed over into a "new invisible environment." Considering what had to happen to allow the evolution of the "dreaming animal," Eiseley is "amazed and humbled that man was achieved at all" (IJ 122).

As man changed, nature changed--because man is one of nature's many manifestations. "Nature . . . was beginning to reach out into the dark behind itself. Nature was beginning to evade its own limitations in the shape of this strange, dreaming and observant brain" (IJ 121). Whatever worlds were gained with the growth of the dreaming human brain, another world was lost: "The Eden of the eternal present that the animal world had known for ages was shattered at last. Through the human mind, time and darkness, good and evil, would enter and possess the world" (121). In the new world of the large-brained dreamer, the struggle for survival was fought "not by ax and spear . . . but in the world of streaming shadows forever hidden behind the forehead of man" (121).

In The Invisible Pyramid Eiseley imagines what consciousness might have been like for the prehistoric, then prehuman, creatures who were our ancestors. The neolithic people who would build the hill forts on the British downs buried their dead "in red ochre under the fire pit, the red standing for blood" for a people "quick in analogies and magic. The ochre was for life elsewhere and farewell" (IP 10). Further back, across two separate glaciations and two interglacial summers, cruder people with wild, uncertain eyes did not sew garments or make weapons other than pointed stones; they had

trouble making and keeping fire. They left their dead where they fell, and did not try to increase the spoils of the hunt with magic or cave paintings. Their faces took on the cavernous look of the places they inhabited. Less sure they were men, these people had fewer words and were "terrifyingly ignorant and given to frustrated anger. There was too much locked up in us that we could not express" (IP 10). Eiseley speaks the rage and frustration of these creatures, neither human nor animal:

> We were being used, and perhaps it was against this that we unconsciously raged the most. We were neither beast nor man. We were only a bridge transmitting life. I say we were almost animals and knew little, but this we felt and raged against. There were no words to help us. No one could think of them. Sometimes we were stalked by the huge cats, but it was the inner stalking that was most terrible. (IP 10-11).

The last journey back in time across the first ice age leads to a creature freed from this terrible "inner stalking," a creature who walks upright but makes no fire and no tools except "an occasional bone club." These small, unclothed pygmies, "no longer stare at the stars or think of the unreal": "The dead are dead. No one follows us at nightfall. Do not repeat this. I think we are animals. I think we have reached beyond the bridge. We are happy here. Tell no one" (11). Thus, Eiseley imagines man back to Eden, to the time before consciousness brought weeping and memory. In The Immense Journey, Eiseley writes that the Eden story is a fitting allegory for the rise of human consciousness during the time between the beginnings

of the first and second ice ages: " . . . [man] walking memoryless through bars of sunlight and shade in the morning of the world, sat down and passed a wondering hand across his heavy forehead. Time and darkness, knowledge of good and evil, have walked with him ever since" (125). Between the beginnings of the two ice ages, " a new world of terror and loneliness appears to have been created in the soul of man" (IJ 125).

Nietzsche, for whom consciousness was a disease, offered his own hypothesis on the origin of mankind's bad conscience; his theory of the beginnings of consciousness is remarkably close to Eiseley's. Nietzsche speculated that the change came when human beings began to repress instinct so as to live in mutually supportive groups: "I take bad conscience to be a deep-seated malady to which man succumbed under the pressure of the most profound transformation he ever underwent---the one that made him once and for all a sociable and pacific creature" (Genealogy 217).[6] Like sea creatures forced to become land animals, humans, in the process of leaving their unconscious animal beginnings were "forced to change their natures." Abruptly bereft of the guidance of unconscious instinctual drives, people were forced by what Nietzsche called an ineluctable disaster "to think, deduce, calculate, weigh cause and effect--unhappy people, reduced to their weakest, most fallible organ, their consciousness!" (217).

When they were driven underground, Nietzsche believes that these repressed instincts created an interior world into which to vent

themselves: "This is what I call man's interiorization; it alone provides the soil for the growth of what is later called man's *soul*" (217). Nietzsche believed that this interior world expanded as the outward discharge of instinctual drives was restricted. And as these "wild, extravagant instincts" turned inward, they attacked the host:

> Hostility, cruelty, the delight in persecution, raids, excitement, destruction all turned against their begetter. Lacking external enemies and resistances, and confined within an oppressive narrowness and regularity, man began rending, persecuting, terrifying himself, like a wild beast hurling itself against the bars of its cage. (Genealogy 218)

Deprived of the excitement and gratification of the lost animal world, languishing man turned "*himself* into an adventure, a torture chamber, an insecure and dangerous wilderness--this fool, this pining and desperate prisoner, became the inventor of 'bad conscience'" (218). According to Nietzsche, man thereby infected himself with "the greatest and most disastrous of maladies . . . his sickness of himself" (218). This interiorization and bad conscience resulted, Nietzsche believed, from man's "violent severance from his animal past, by his sudden leap and fall into new layers and conditions of existence, by this declaration of war against the old instincts that had hitherto been the foundation of his power, his joy, and his awesomeness" (218).

Nietzsche says that this change in man begat an even larger change; man's interior struggle required a witness:

> . . . the phenomenon of an animal soul turning in upon itself, taking arms against itself, was so novel, profound, mysterious, contradictory, and pregnant with possibility, that the whole complexion of the universe was changed thereby. This spectacle . . . required a divine audience to do it justice. It was a spectacle too sublime and paradoxical to pass unnoticed on some trivial planet . . . . Man now aroused an interest, a suspense, a hope, almost a conviction--as though in him something were heralded, as though he were not a goal but a way, an interlude, a bridge, a great promise . . . ."
>
> (Genealogy 218-219)

For Nietzsche and Eiseley, man becomes not an end in himself but an interlude in some larger process. They even use the same image of the stages of human consciousness as bridges to something beyond.

Eiseley believes that human beings continue to pay with anxiety and terror for crossing the threshold into conscious thought. Near the end of The Invisible Pyramid, he writes that man seems to feel the need to appease--by "some act unknown"--some unidentifiable forces for the Promethean effrontery of intruding into the world of thought: "For this purpose he has raised pyramids and temples, but all in vain. A greater sacrifice is demanded, the act of a truly great magician, the man capable of transforming himself" (150). Eiseley says that also buried in our haunted subconscious is "a simple terror of what has come with us" from that forest time before the small apes became *homo sapiens*. We seek to shelter ourselves with the artifice of culture from the first world that haunts our animal bodies: "The curious sorcery of sound symbols and written

hieroglyphs in man's new brain had to be made to lure him farther and farther from the swaying reeds" (IP 151). And the anxiety and terror leftover from our flight from the forest world of our origins insure that the we will seek even in space flight a way out of the "cosmic prison" of our bodies: "A creature who has once passed from visible nature into the ghostly insubstantial world evolved and projected from his own mind will never cease to pursue thereafter the worlds beyond this world" (IP 151). Mankind has come to live as much in the world of imagination as in the physical, external world of nature, and humans range imaginatively across time. Although this new interior world, a temporary eternity of memory and hope and fancy, may be an escape from the oppression of the present, it may also become a place of horrors--the forebodings of potential miseries and inevitable death, the fecund soil to raise up the dragon seeds of man-imagined and then man-made terrors, and the repository of most awful memories.

The capacity to share this interior world--its joy and its terror --depends on the ability to transfer vast amounts of information that cannot be transmitted genetically as instinct or as observable, patterned behavior. Symbolic communication had to replace instinct: "This emergent creature was not whole, was not made truly human until, in infancy, the dreams of the group . . . had been implanted in the waiting, receptive substance of his brain" (IJ 121). Plant domestication and grain storage made possible "a spectacular increase in human numbers," allowing also for the diversification of

labor and the ability to feed concentrated population centers. As civilization became possible, so did shared cultures: " . . . the old sun-plant civilizations provided leisure for meditation, mathematics, and transport energy through the use of sails" (IP 67). The shared social/cultural brain evolved because the seed case of writing made possible the accumulation and transmission of vast amounts of knowledge that could not be contained in DNA or learned through patterned behavior. "Writing . . . created a kind of stored thought-energy, an enhanced social brain" (IP 67). Just as the seeds of angiosperms had stored the sun energy necessary to make possible the development of warm-blooded mammals, writing became the means of storing and transmitting thought energy thereby sharing knowledge and ideas across time and space and making the progress of conscious learning possible. Eiseley speculates that it may be the combined power of many individual units into the human social brain which holds the potential for immortality: "Even now . . . the brain of man, with all its individual never-to-be-abandoned richness, is becoming merely a unit in the vast social brain which is potentially immortal, and whose memory is the heaped wisdom of the world's great thinkers" (IJ 125).

Following the invention of the written word, Eiseley says that the scientific method, "the invention of inventions," brought the next great revolution in human knowledge. Man became the agent of nature's self discovery. In the Advancement of Learning, Francis Bacon, the father of the scientific method, wrote, "' . . . we are not to

imagine or suppose, but to *discover* what nature does or may be made to do'" (qtd. in IP 68). For Bacon, scientific knowledge--the discovery and proof of nature's laws--had to be acquired through observation and experiment, not through meditation and extrapolation from Aristotle and Ptolemy. Also, Bacon recognized that scientific achievement would depend on institutionalized support over human generations; it could not be contained "'in the hourglass of one man's life'" (68). As nature created the developing mind, the mind set about recreating its image of nature, gradually changing our understanding of the world outside. William Barrett has suggested that the revolution of modern science has introduced a way of thinking that might very well be described as "a mutation of the human mind" (Death of the Soul 70). From an evolutionary viewpoint, mind in its conceptual and scientific use is "an extension of our sensory faculties" which it functions to correct and amplify. Mind "helps us to see our way farther and better in going about our ordinary world" (80).

> In the very constructivity of our scientific concepts--the human mind fabricates concepts that literally are not found in its ordinary world--we already have taken a step beyond nature, in order subsequently to deal with it. Nor is there anything 'unnatural' in this step; indeed in taking that step the human mind comes into the fullness of its own nature and its powers. (Death of the Soul 74)

After the scientific revolution, the "ordinary world of the senses" no longer seemed to be "the true world" (Death of the Soul 16).

Yet, this mind that grew out of nature is even so made of nature's substance and shares nature's qualities. In The Mind as Nature--a title that Howard Nemerov found "as appealing as appalling" (18)-- Eiseley compares the evolution of the mind to the evolution of the universe: both are drawn into being out of nothing (for light years or earth years) and then return to the creative void. The life of the mind replicates the life of the cosmos:

> . . . the evolution of the entire universe--stars, elements, life, man--is a process of drawing something out of nothing, out of the utter void of non-being. The creative element in the mind of man--that latency which can conceive gods, carve statues, move the heart with the symbols of great poetry, or devise the formulas of modern physics--emerges in as mysterious a fashion as those elementary particles which leap into momentary existence in great cyclotrons, only to vanish again like infinitesimal ghosts. The reality we know in our limited lifetimes is dwarfed by the unseen potential of the abyss where science stops. In a similar way the smaller universe of the individual human brain has its lonely cometary passages, or flares suddenly like a super nova, only to subside in death while the waves of energy it has released roll on through unnumbered generations" (MAN 45-46).

Both universe and individual arise out of nothing, flash momentarily, and return to nothing. Mind and nature share the flight of the sparrow as Bede described it in "The Conversion of King Edwin": The sparrow flies from the dark night of a winter storm into the warm, brightly lit mead hall and immediately vanishes out another door, back into the dark winter from which it emerged (Bede 75). Mind and world exist in the brief space between two darks. But the end of

the individual universe or the individual mind, Eiseley says, releases energy back into the void to be recycled into new creation.

As the universe and the individual share similar origins and ends, they share also a similar doubleness. Eiseley sees a duality in nature, a world divided into two aspects--one apparent, the other veiled--and finds that same duality mimicked in human thought. Behind the daily presentation of "the ridiculous, wonderful tentshow of woodpeckers, giraffes, and hoptoads" lurks another universe: "some kind of dark, brooding, but creative void out of which these things emerge--some anti-matter universe, some web of dark tensions running beneath and creating the superficial show of form that so delights us" (MAN 17). Eiseley sees in individuals a duplication of this double-sided universe: "we mirror in ourselves the universe with all its dark vacuity and also its simultaneous urge to create anew, in each generation, the beauty and the terror of our mortal existence" (MAN 18). Eiseley describes the universe as "that vast sprawling emergent" and refers to life as "its even more fantastic shadow" (MAN 28). Creativity he terms an enigma "'set in the invisible'" (28). He quotes Dewey who insisted in Experience and Nature "'[t]hat the tangible rests precariously upon the untouched and ungrasped'" (qtd in MAN 28). Eiseley believes human creativity parallels nature's furtive methods of creation. Islands isolated from the mainland allow for "a great evolutionary proliferation amongst the flora and fauna" of "strange shapes" and "exotic growths"--forms that, unprotected by isolation, would have been exterminated by

more powerful and dominant life forms: "Sometimes the rare, the beautiful can only emerge or survive in isolation" (MAN 29). Eiseley finds that likewise "some degree of withdrawal serves to nurture man's creative powers." In a necessarily lonely process, "[t]he artist and scientist bring out of the dark void, like the mysterious universe itself, the unique, the strange, the unexpected" (MAN 29). To understand the mind we must look at nature:

> If the mind is indigenous and integral to nature itself in its unfolding, and operates in nature's ways and under nature's laws, we must seek to understand this creative aspect of nature in its implications for the human mind . . . . the natural laws of the mind include an emergent novelty . . . (MAN 59).

The mind possesses "a latent, lurking fertility not unrelated to the universe from which it sprang" (MAN 30).

Eiseley also sees an analogy between the biological screen which limits through natural selection the number of potential life forms permitted actually to materialize and the mental censor that interferes with creation out of the multitude of potentials within the unconscious. Biologically, only a small portion of the "potential fecundity of life in the universe" manages "to break through the living screen, the biosphere, into reality": "Organic opportunity has thus placed sharp limits upon a far greater life potential than is ever permitted to enter the actual world" (MAN 50). Yet Eiseley sees in this hidden world "of possible but nonexistent futures . . . a constant accompaniment, a real but wholly latent twin, of the nature in which

we have our being" (MAN 50). And Eiseley intuits an equally vast and procreant void in the space within the human psyche and believes there are both genetic and cultural barriers that limit creativity:

> Just as, in a given situation, the living biological screen may prevent the emergence of a higher form of life, or precipitate its destruction, so in that dark, soundless area of the brain, which parallels the similarly pregnant void of space, much may be barred from creation that exists only as a potentiality" (51).

Again, mind is a microcosm of the universe.

And finally, Eiseley is also aware "of something else than the geometric extension of power, whether in a civilization or a man" (MAN 57). As nature continually unmakes its creations, there seems to exist also in man a counter-urge toward decreation.

> There comes a time when the thistles spring up over man's ruins with a sense of relief. . . . The tiny incremental thoughts of men tend to congeal in strange vast fabrics, from gladiatorial coliseums to sky scrapers, and then mutely demand release. In the end the mind rejects the hewn stone and rusting iron it has used as the visible expression of its inner dream. Instead it asks release for new casts at eternity, new opportunities to confine in fanes the uncapturable and elusive gods. (MAN 58)

The searching, hungry mind tires of the struggle to understand its condition:

> Has it occurred to us sufficiently that it is part of the continuing growth of this mind that it may *desire* to be lost--lost among

> whalebones in the farthest seas, in that great book of which Melville, its author, wrote, 'a polar wind blows through it,' lost among the instinctive villainies of insects in the parched field where Henri Fabre labored, lost with St. Exupery amidst the crevasses and thin air of the high Andes, down which the first airmail pilots drifted to their deaths. (MAN 55-56)

Eiseley believes that because "the burden of consciousness has grown heavy upon us," something within humankind seeks extinction and escape from time, flees the responsibility of too much knowing and too many impossible aspirations, and desires to unburden itself of the weight of consciousness.

Eiseley's way of investigating the mind was to explore its origins, trying to understand how mind came to be. Intrigued by the process of nature creating a mind that would become its own discoverer and witness, Eiseley traces the mind-creating brain's evolution over eons: from pond scum moving greenward onto the land, to air-hungry fish struggling to live in a drying swamp, to the bursting forth of angiosperms whose seedcases contained the energy to feed mammalian brains, to the great leap in brain size and rise of consciousness that occurred during or between the Ice Ages, to the invention of writing that preserves and transmits the thoughts of individual minds (so thought can outlive mind), to the development of the scientific method that looks beyond sensory perception (escaping the limitations and misperceptions of the senses) to understand the nature of nature. Through enhanced human consciousness, worlds invisible to sense--the cosmos, the atom--

become visible to mind, and humankind becomes the agent of nature's self-discovery.

But consciousness comes with loss as well as gain. The faculties of mind that allow us to delve into nature's mysteries also cut us off and set us apart; we are confined within our own consciousnesses, compelled to be astigmatized observers of the otherness in nature, in our own species, and even in our own unconscious. Despite our best attempts to follow, the bluefish escapes into the shadows where mind cannot follow. In this sense, consciousness itself becomes what Einstein called a "limit case" or Nietzsche, a narrow room. Consciousness also arouses in us questions we have, as yet, been unable to answer. Acknowledging that we are evolutionary creatures and that our senses have been called out by their environment, Wilbur is left to wonder what is it that has called out mind--and what calls it still with the siren song of the unknown. Reflecting on the great awakening to self-consciousness and world-consciousness that came sometime between the ice ages, Eiseley emphasizes the cost rather than the joy. He says we continue to pay with anxiety and terror for crossing the threshold, for walking out of the limited awareness of an eternal present and into time.

Nevertheless, Eiseley describes the process of evolution of the human mind as a slow miracle, a phenomenon arising out of vague beginnings, millenia past. As a product of nature, the mind shares nature's attributes: Both arise out of and then disappear back into the void after a flash of existence. Both display a novelty that

emerges out of a latent, lurking fecundity, and these creative displays of both mind and nature represent only a small portion of the hidden potential that never comes to form. And Eiseley sees in man a replication of nature's impulse to decreation, the will to unmake what has been so carefully wrought. Like nature, the human mind is as mysterious and complex as the concept of soul has ever been. To say that the mind is natural does not begin to explain away its mysteries. The mind then simply becomes part of the incredible mystery of creation.

In The Man Who Saw Through Time, his book on Sir Francis Bacon, Eiseley affirms his belief in a wild unpredictability hidden behind the ordinary facade of what we call the world:

> Physicists, it now appears, are convinced that a principle of uncertainty exists in the submicroscopic realm of particles and that out of this queer domain of accident and impact has emerged, by some kind of mathematical magic, the sustaining world of natural law by which we make our way to the bank, the theatre, to our homes, and finally to our graves. (101)

Eiseley contends that "such a world so created has something wild and unpredictable lurking behind its more sober manifestations" (101). He also asserts his belief that this "rare freedom of the particle to do what particles never do is duplicated in the solitary universe of the human mind" (101). From nature seen as "natural" and the mind seen as one of its ever-evolving manifestations, we will now turn to the nature of the solitary universe of the human

mind--from the mind as nature to the nature of mind. We will look at mind, not through science and the natural history of evolution, but through the lens of poetry. As Eiseley wrote, " . . . mere words can sometimes be more penetrating probes into the nature of the universe than any instrument wielded in a laboratory." (MWSTT 71).

The Nature of Mind

In his poem "Icarium Mare," Wilbur uses the image "[t]he saint's geodic skull bowed in his cave" to describe the disciple John exiled to the isle of Patmos, alone in a cave writing the Book of Revelation. The image of John's "geodic skull" is of a cave within a cave. A geode on its exterior surface looks unremarkable--a dull-surfaced, nodular stone--but a good one split open reveals an interior hollow alive with crystal light and form, sometimes deep amethyst or rose quartz or Chartres blue. Like the light that exposes the interior wonder of a geode, language reveals the interior marvels of the human skull, the the mind-making brain. Awareness exists without words--just as the crystal cave exists inside an unopened geode--but consciousness, the self-awareness that allows the brain to discourse with itself and with other minds, requires symbolic language, words or images or music. Since the ice ages, it has been the nature of the human mind to speak in such symbolic language. Language allows the brain to have ideas, to sustain and rethink and remember them; language allows the mind to observe and amplify sensory data, correcting mistakes and misperceptions. Language

permits the mind to think about itself and wonder about its own reason for being. But language also fails. Colin Falck says that "the greatest literature has always called the whole world in question and has always worried about the difficulty of saying what we mean" (Myth, Truth and Literature 159). Language has its limitations. Declaring in her book The Mind of the Maker that all language is analogical and that "we think in a series of metaphors," Dorothy L. Sayers says that "we can explain nothing in terms of itself, but only in terms of other things" (188). Symbolic communication means that nothing can be spoken of directly; everything must be told in terms of something else. Like Prufrock, the poet discovers "'It is impossible to say just what I mean!'" (Eliot 6).

Though language makes its best failures in poetry, it also falls short in religion and science because both the ineffable and the subatomic elude our sense-bound metaphors. In The Tao of Physics, Fritjof Capra explains how language fails both Eastern mysticism and Western science. Capra writes that for nearly a century scientists have recognized that verbal interpretations of scientific theories suffered from "the inaccuracy of our language"; however, with the discovery of atomic and subatomic reality, scientists have found that "our common language is not only inaccurate, but totally inadequate" to express the discoveries of quantum theory and relativity theory (Capra 45). Werner Heisenberg describes the "'problems of language'" as "'really serious'": "'We cannot speak about atoms in ordinary language'" (qtd. in Capra 45). The mathematical symbols

used to express quantum theory cannot be translated into verbal language without significant distortion. Mysticism, however, discovered this failure of words millenia ago. Unlike Western science, philosophy, and even religion--which, according to Bertrand Russell, have all depended on logic and reason--Eastern mysticism has always assumed "that reality transcends ordinary language" (Capra 46). Buddhist scholar D. T. Suzuki writes that "'we have to use language to communicate our inner experience which in its very nature transcends linguistics'" (qtd. in Capra 45). Therefore, Hinduism has resorted to myth, and Buddhism and Taoism have exposed the limits of logic through paradox. Because both quantum physics and mysticism concern realities which are not accessible to sensory experience, they transcend our sensory imaginations, and "our ordinary language, which takes its images from the world of the senses, is no longer adequate to describe the observed phenomena" (Capra 51). Thus, when either the physicst or the mystic attempts to communicate knowledge through language, "their statements are paradoxical and full of logical contradictions" (46).

Yet, it is in the very failures of language that we intuit the beyond which cannot be said. Language pushed to the brink brings us to the edge of that which is unsayable. The ineffable may be discovered by our inability to say it. In "Lying," a poem about poetry, Wilbur writes that " . . . a thing is most itself when likened" (Poems 10). This paradoxical aphorism expresses the revealing truth that the best comparisons work because they create a highlighting

border of difference. Metaphor succeeds because it fails. Failures of language also reveal that there is more to mind than wide-awake, conscious reasoning, that there are, in fact, aspects of mind itself which cannot be said. There is something noncomputational and nonmetaphorical in thought that allows mind access to realities that are not analogical and therefore remain pre- or post-linguistic. Falck says that "a certain obscurity" is, in fact, necessary to poetry: "a disparity between our intuitive apprehensions and the categories of our already-existing language . . . is the necessary condition of all poetry and the very element in which it works" (159).

As Eiseley sought to explain the mind as nature by examining its natural history, Wilbur explores the nature of mind by creating poems in which the mind can observe itself at play in metaphors. In his "mind poems," Wilbur explores the nature of the mind's interchange with the vast world inside and outside the skull by creating suitable metaphors--figures that allows him to say something about the mind engaging the realities it struggles to know. Unvaryingly in these poems, Wilbur tests and challenges his own metaphors and inevitably locates revealing failures of similitude, thereby discovering something that the original figures, however apt, had obscured. In three poems ("Mind," "The Writer," and "An Event") Wilbur likens the mind to flying things--a bat, a starling, and a flock of swallows. Like the restless mind, the bat and birds are in flight or are gathering themselves for flight. In the end, words fail and bat and birds and mind escape the poet, but not before he has had a

fleeting glimpse of what it is he has not been able to net in the web of words.

In other poems--"The Rider" and "In Limbo"--Wilbur tries another tactic to discover aspects of mind that are not accessible to consciousness or logic; he places the persona of his poem on the borderland between just-awakening consciousness and the just-fading world of a dream. There he creates a mental topography where the constraints of logic and ordinary sensory realism are tenuous, where the mind's normal daylight confidence in its conceptions of the world are shaken, and where mind gropes after vaguely understood possibilities. Michelson says that "[f]or Wilbur, the sanest man, the most reluctant visionary, can perceive a 'sublime decor'--illusion, perhaps, or perhaps something more than illusion--only when the mind is near some strange edge between the restrained, waking sensibility and the self-loss of deep dream" (68). And finally, in his poem "The Mind-Reader" Wilbur creates a mind that knows both too much and not enough and thereby becomes a revealing extreme of the human condition.

In his poem "Mind," Wilbur begins by likening the mind to a bat:

> Mind in its purest play is like some bat
> That beats about in caverns all alone,
> Contriving by a kind of senseless wit
> Not to conclude against a wall of stone.
>
> It has no need to falter or explore;
> Darkly it knows what obstacles are there,

And so may weave and flitter, dip and soar
In perfect courses through the blackest air.
(Poems 340)

The mind in the "purest play" of imagination can careen about the dark interior world of thought avoiding, through "senseless wit," a conclusion "against a wall of stone." Wilbur plays on the oxymoron of "senseless wit": *Senseless* normally means destitute of, deficient in, or contrary to sense, lacking sensibilty or feeling--unconscious, insensible. *Wit*, on the other hand, is synonymous with mind, memory, sanity, astuteness of perception or judgment. According to The Oxford English Dictionary, wit can refer to the "faculties of perception," in particular, the five senses. Wit also suggests creative imagination, intellectual brilliance and subtlety--specifically (according to Webster's Third New International Dictionary) "the ability to discover amusing analogies between unrelated things and to express them cleverly"--which is exactly what Wilbur displays in this poem. On the surface, the juxtaposition of these two words creates an oxymoron, but combined in the context of the poem, the words *senseless wit* suggest a faculty larger than the five senses, far more imaginative than common sense; both bat and mind are capable of perceptions and understandings that are beyond the ordinary and that are *extra-sensory*. The mind--the thinking--flies about in the opaque solitude of the human skull, the cavernous vault of stone, guided by aspects of the intelligence which are not entirely dependent upon the limited information supplied by the senses or

governed by common sense logic. The mind is capable of creative synthesis, generating within itself imaginings concocted from what it knows of the world and from intuitions of what it does not know. When the imagining is successful, the mind makes a larger world for itself through its own senseless perception. Generally, the mind can express this synthesis only through the images and symbols of the senses, the world outside--thus, the need for metaphor.

As with "senseless wit," Wilbur also plays with the meanings of the verb "conclude." The bat-like mind contrives "[n]ot to conclude against a wall of stone." *Conclude* vacillates between the meaning "to reach through reason a final judgment" and the meaning "to bring to an end, to terminate." A bat by virtue of its sonar perception of solid objects--"a kind of senseless wit"--is able to avoid concluding or terminating by crashing into a cave wall. Likewise, the mind seems to have an intuition that prevents it from needing "to falter or explore": "Darkly it knows what obstacles are there, / And so may weave and flitter, dip and soar / In perfect courses through the blackest air." (Poems 240). There is, however a subtle ambiguity in this dark knowing. "Darkly it knows" conveys the sense that understanding may come obscurely, vaguely, or mysteriously, not in a way traceable to the usual sensory channels or the rational processes of induction or deduction. The phrase also conveys the sense of an "obscured vision"--something known dimly rather than in a full light; it suggests a kind of knowing that keeps us in the dark. Thus, these three words suggest two contradictory kinds of knowing:

one knowing that is larger than the senses or logic and another kind of knowing constrained by a diminished awareness. In one sense, the bat and the bat-like mind know the unseen limits, the hardness past which flight and thought cannot go without crashing into the wall of perceived conclusion. Though the wall that is known becomes the end of knowing, it also creates the setting of possibility. The circumscribed world of the dark cave--the bat's cavern and the mind's knowing--allows a limited perfection--"perfect courses through blackest air." The mind at play is like a bat contriving to make a game of its dark and limited world; in swoops and arabesques, mind and bat define the boundaries and even achieve a splendid virtuosity as they describe in darts and abrupt careenings the borders of the cave and of knowing. The wall also presents a challenge, something to get beyond.

Wilbur stops to re-say and consider his metaphor: "mind in its purest play is like some bat / That beats about in caverns all alone," not needing "to falter or explore" but darkly knowing "what obstacles are there." Then he asks, "And has this simile a like perfection?" Answering, he "concludes": "The mind is like a bat. Precisely." For that moment he asserts the perfection of his simile only immediately and splendidly to undercut it, destroying its perfection to illustrate perfectly how the mind is *not* like a bat. The abrupt reversal both replicates the flight of a bat which suddenly alters course upon detecting its impending dangerous "conclusion" and demonstrates the mind's marvelous ability to create out of imperfection:

> The mind is like a bat. Precisely. Save
> That in the very happiest intellection
> A graceful error may correct the cave. (Poems 240)

In the process of thinking about and writing this poem, Wilbur said that he "felt something was going to happen at the end to explode the metaphor" (Conversations 47). At the word "Save," the poem--like a bat-- changes courses and asserts that "graceful error" has a higher beauty and efficacy than limited perfection. An idea, a specific act of the intellect can completely alter what has been traditionally accepted as fact. Suddenly the earth is round, not flat, and it is not the center of the universe but a small planet rotating around a minor sun. "Graceful error" expands the physical universe and the universe of thought. Graceful suggests both an action that is aesthetically pleasing and one that exhibits divine beneficence. Graceful error--dynamic, creative, and risk-taking--escapes the confines of static, bounded perfection. The "happiest intellection" changes both inner and outer world.[7]

In fact, graceful error, rather than perfection seems to be built into the nature of things as the necessary agent of change. In The Creative Loop, Harth says that creativity requires a degree of unpredictability and impenetrability. The thinking mind makes errors, but errors made mind. Genetic mistakes made and continue to make change--including the development of mind--possible. The rare errors in the replication of the DNA molecule, the unique

blueprint of every life form, may result in harm to an individual of a species, but such genetic errors function to allow variation and adaptation within the species. Harth writes: "Without such errors, which power the engine of all adaptive changes and the generation of new species, life on earth would never have advanced beyond the stage of the primitive procaryotic cell. In fact, it would have gotten stuck at a much more primitive stage" (21). Genetic mutation made mind possible. Observing that "[o]ur ability to reason, our ingenuity, and our linguistic skills place us so far above any competing animal species," Harth speculates that ". . . . perhaps a unique mutation freed our brains from the constraints of instinct and gave us a *mind*" (Harth xviii). Sociobiologist Edward A. Wilson reached back into Greek myth to propose a name for this hypothetical mutation; he suggested calling the gene that gave the gift of mental fire to humans "the *Promethean* gene" (Harth xviii).

In his poem "The Writer," Wilbur again likens the mind to a flying creature confined in a too-limited space. This time the symbol for mind is a common starling, a bird which had inadvertently blundered in and trapped itself in a small room and then struggled to find the way out. "The Writer" begins with the poet's description of his daughter writing a story "[i]n her room at the prow of the house / Where light breaks, and the windows are tossed with linden." Continuing the ship imagery begun with "at the prow," Wilbur tells of pausing in the stairwell to hear "From her shut door a commotion of

typewriter-keys / Like a chain hauled over a gunwale." He recognizes that even as "Young as she is, the stuff / Of her life is a great cargo, and some of it heavy." The father/writer wishes his daughter/writer "a lucky passage" in her voyage of discovery. His off-hand wish and conventional imagery meet with a sudden silence in which he hears a loud rejection of his "easy figure":

> But now it is she who pauses,
> As if to reject my thought and its easy figure.
> A stillness greatens, in which
>
> The whole house seems to be thinking,
> And then she is at it again with a bunched clamor
> Of strokes, and again is silent. (Poems 53)

The storms of flurried activity followed by dense silence as thought gathers for another attempt against the whiteness of the page remind the poet of a similar struggle that occurred in the same room two years earlier:

> I remember the dazed starling
> Which was trapped in that very room, two years ago . . .
> (Poems 53)

He remembers how they "stole in" to lift the sash without affrighting the bird and then watched "for a helpless hour, through the crack of the door":

We watched the sleek, wild dark

And iridescent creature
Batter against the brilliance, drop like a glove
To the hard floor, or the desk-top

And wait then, humped and bloody,
For the wits to try it again . . . . (Poems 53-54).

The starling's frenzied hurling itself against the transparent window glass--the "battering against brilliance"--followed by its quiet, "humped and bloody" struggle for "the wits to try it again" becomes a metaphor for the writers' (father and daughter's) own battering against brilliance--the frenzied flow of words onto the page followed by the recognition of failure, and the struggle in silence to find the words to try it again.[8] The elation of finally finding the right words is symbolized by the starling's hard-won success in finding the way through the brilliance:

. . . how our spirits
Rose when, suddenly sure,

It lifted off from a chair-back,
Beating a smooth course for the right window
And clearing the sill of the world. (Poems 54)

In the last verse, the father-poet expresses his sense of the common struggle as he and his daughter and the starling batter against the brilliance of reality. To clear the sill of the world and say something that is true requires an agonizing and patient effort.

Having thus really confronted his earlier image that life is "a great cargo, and some of it heavy," the poet again wishes his daughter "a lucky passage"--but now with no off-hand ease:

> It is always a matter, my darling,
> Of life or death, as I had forgotten. I wish
> What I had wished you before, but harder. (Poems 54)

In this poem in which he speaks publicly to his daughter Ellen, Wilbur says that he is wishing her a "lucky passage" in two ways--"in the sense of making connections with the world, getting out of oneself, and of writing a good paragraph" (Conversations 233). He wishes her good writing and "a successful coming to terms with the world by way of the common means of language" (234). Their shared witness of the starling's struggles becomes the metaphor for their own shared struggles as writers. The poem recognizes that starling and writers are bound in a community of fierce effort: "It is always a matter . . . / Of life or death."

The "graceful error"--creative evasion and lucky-chance remaking of the exterior world--of "The Mind" becomes something harder and more desperate in "The Writer." The deft, instinctive maneuverings of a bat in flight have a magical, miraculous quality for dark-blind humans. Using some "senseless wit" even more amazing than sixth-sense sonar, the bat/mind makes the mistake that should have it concluding against a wall of stone but which instead changes the shape of the world of thought. This "graceful

error" compares with Kepler's intuitions of oval orbits and of the invisible force emanating from the sun to control the motion of the planets; his dissent from the accepted Ptolemaic forms (following Copernicus and preceding Galileo) changed the cave of the world as human beings perceive it. However, the mind-bat could make its graceful, correcting error only after a thorough exploration of the known architecture of the cave. Arthur Koestler says that Kepler's intuition came after spending six years trying to work out the orbit of Mars using the accurate observations supplied by Tycho Brahe. His discovery of a discrepancy between the observed positions of Mars and those his theory projected led him to transform his error into " . . . the cornerstone of a new science. For those eight minutes arc had at last made him realize that the field of astronomy in its traditional framework was well and truly blocked" (Koestler 128). In "The Writer," the starling/mind finds the way out of its confines only by overtly bashing itself against the wall of brilliance--the thin pane of transparency that lets it see the world it would fly into but that separates it from that reality. Only through its repeated mistakes, only by hurling itself against that barrier does the starling/mind finally discover the way through. But even that escape has a bit of the earned miracle about it.

"An Event" is another poem in which birds teach the poet something about the mind. The poet watches his mind at play in metaphor as it observes and then tries to say for itself the nature of

what it sees. The "event" of which the title speaks is the poet's witnessing of a flock of birds whose communal flight behavior--all responding simultaneously, unanimously to some invisible cues--mystifies the poet. The first stanza opens with a splendid, apt metaphor that captures the movement of the birds as the reversal of another action:

> As if a cast of grain leapt back to the hand,
> A landscape of small black birds, intent
> On the far south, convene at some command
> At once in the middle of the air, at once are gone
> With headlong and unanimous consent
> From the pale trees and fields they settled on. (Poems 274)

The precise unanimity of their flight leads the poet to exclaim, "What is an individual thing?" The birds' unity of motion and purpose seems to create an entity superior to the lone individual. Then, he gives "their image to my soul" in another metaphor: "They roll / Like a drunken fingerprint across the sky!" Ironically, the image he uses to convey the birds' group behavior is that of the uniquely individual--a fingerprint--but a fingerprint that becomes erratic and irregular as it moves drunkenly across the sky. Then the birds seem to rebel against his likening, his categorizing, pigeon-holing metaphors:

> . . . as if refusing to be caught
> In any singular vision of my eye
> Or in the nets and cages of my thought

> They tower up, shatter, and madden space
> With their divergences, are each alone
> Swallowed from sight, and leave me in this place
> Shaping these images to make them stay . . . . (Poems 274)

As though asserting their existence outside his perception and imagination, the birds refuse to allow his "singular vision" to make any one thing of them; they shatter into many bird selves and are "swallowed" from sight.[9] Here Wilbur puns on the double meanings of swallowed. The birds are individually "swallowed" or engulfed in the vastness of the sky, and they also assert their swallowness. The small black birds are neither the rewind of a fling of grain nor a drunken fingerprint wobbling across the sky; their swallowness escapes human imagining (like the bluefish in "Trolling for Blues").

In this tug of war between the watcher and the watched, the poet shapes images to make the birds stay, but he is as much captured as he captures:

> Meanwhile, in some formation of their own,
> They fly me still, and steal my thoughts away. (Poems 274)

He sees the birds as makers of "some formation of their own"--as intricately deliberate as his own lines of iambic pentameter, the end rhymes of each stanza following the pattern a, b, a, c, b, c. The man makes arresting images of the birds; the birds make a poet of the man.

In the final stanza, Wilbur expresses delight with himself and the birds. In fact, as God of his little universe of a twenty-four line poem, he will recreate them: "I set them down and give them leave to be." Wilbur finds in his image-making and the shattering of his images, the glimpse he seeks--not so much Robert Frost's "momentary stay against confusion," but a momentary sense of pure delight as the mind at play with words engages the world:

> It is by words and the defeat of words,
> Down vistas of vain attempt,
> That for a flying moment one may see
> By what cross-purposes the world is dreamt. (Poems 274)

He struggles to know and say the world by finding the startling likeness, the memorable image, and in doing so he captures something, but not the thing itself. However, even the defeat of words creates "sudden vistas of the vain attempt"--a place for a fleeting vision, the flying moment in which one may at least see what it is that has escaped the web of words. Michelson says, "Language fails--that is a given. But it gives us some of the words we need to name that failure, and to reach some imaginative dominion over it" (34). The world is dreamt by cross-purposes--by the mind intersecting with a contrary, ungovernable reality. Words are the way the conscious mind knows and the way it talks to itself about what it knows. Through the failure of words, mind learns where its knowing stops. Perhaps the real *event* comes with the failure.

Anthony Hecht finds a "salutary and characteristic humility" in "The Event":

> In an era when a lot of supremely pompous things have been claimed for the omnipotence of language, it is refreshing in the work of so accomplished a poet to encounter an acknowledgment of the 'the defeat of words' in the face of the richness and multiplicity of an external reality that will always supersede and evade the limitationtions of our vocabulary, however well deployed. ("Master of Metaphor" 25)

Like Wilbur, Eiseley uses natural imagery to create a vignette in which he can discover and say something about mind. In the process, Eiseley, too, discovers the limitations of words. Investigating in metaphor the mind's way of holding and, much later, uncovering fragments from the past, Eiseley finds that the meaning of his imagery cannot be explained without diminishing it. He can only create the figure but not explain it. Eiseley encountered his metaphor for the mind while perched atop a ladder surveying the cluttered universe of "a great black and yellow embodiment of the life force," an orb spider plaiting an autumnal web in the temporary warmth of a "minor sun"--a suburban street light. He found the history of her universe in fragments:

> . . . a couple of irridescent green beetle cases turning slowly on a loose strand of web, a fragment of luminescent eye from a moth's wing and a large indeterminable object, perhaps a cicada, that had struggled and been wrapped in silk . . . also little bits and slivers, little red and blue flashes from the scales of anonymous wings that had crashed there. (IJ 177)

Eiseley could imagine that some days these shards and remnants would be "dull and gray . . . the shine out of them" but then the dew would polish them again and hang in drops on the silk "until everything is gleaming and turning in the light." He concludes that the world of the orb spider, weaving as the universe runs down toward winter, is "like a mind, really, where everything changes but remains, and in the end you have these eaten-out bits of experience like beetle wings" (177). Watching the spider tightening her lines and improving her web, Eiseley realizes "that the web and its threatening yellow occupant had been added to some luminous store of experience, shining for a moment in the fogbound reaches of my brain" (177-178). The experience might hang for long periods forgotten, its fragments faded, colorless in the back reaches of memory. But brought again to consciousness and bejeweled by the dew of the imagination, the fragments of meaning would flash again, blue, red, and irridescent green and everything gleam and turn in the light the mind can make.

Leaving his adventure with the spider, Eiseley concludes that the "mind . . . is a very remarkable thing; it has gotten itself a kind of courage by looking at a spider in a street lamp" (LJ 178). Thinking that he should set down a message to the future, "to those who will fight our final freezing battle with the void," Eiseley is tempted to write, "*In the days of the frost seek a minor sun*" (178). But he feels the marvel escaping him--"a sense of bigness beyond the man's

power to grasp, the essence of life in its great dealing with the universe" (178).

> It was better, I decided, for the emissaries returning from the wilderness, even if they were merely descending from a stepladder, to record their marvel, not to define its meaning. In that way it would go echoing on through the minds of men, each grasping at that beyond out of which the miracles emerge, and which, once defined, ceases to satisfy the human need for symbols. (IJ 178)

It is characteristic of the human mind to grasp "at that beyond out of which the miracles proceed" but also never to be satisfied once things are explained or "defined." Definition--confining meaning within the logic of words--necessarily shuts out the beyond, the mystery which the mind craves. Symbol and metaphor, while limited by analogical thinking and sensory perception, bend logic and leave room for the unknown; they say what can be said and then gesture toward the ineffable. The mind for all its splendid capacities does not have a tongue that can say the mystery it seeks. The very suggestiveness of language implies that meaning exists beyond words; sometimes that extra-linguistic meaning can be glimpsed when language is pushed to edge of failure. Some illumination is possible in the flash just when the wick gutters and goes out.

Not only poets are troubled by the limits of logic and the conscious mind. Arthur Koestler, considering the limits of logic in his book The Act of Creation, writes that discovery in science and

mathematics is full of "arrivals at unexpected destinations, and arrivals at the right destination by the wrong boat" (145). Koestler finds "evidence for large chunks of irrationality embedded in the creative process, not only in art . . . but in the exact sciences as well . . . it is particularly conspicuous in the most rational of all sciences: mathematics and mathematical physics" (146). Among the "intimate writings" of "men of science," Koestler discovers these recurrent themes: "the belittling of logic and deductive reasoning (except for verification after the act); horror of the one-track mind; distrust of too much consistency . . . [and] scepticism regarding all-too-conscious thinking . . . " (146). Regarding the last ("all-too-conscious thinking"), Koestler quotes Einstein: "'It seems to me that what you call full consciousness is a limit case which can never be fully accomplished. This seems to me connected with the fact called the narrowness of consciousness *Enge des Bewusstseins*'" (146).

Eiseley, also, affirms in his essay "The Mind as Nature" his belief that "the freedom to create is somehow linked with facility of access to those obscure regions below the conscious mind" (50). He quotes Thoreau in a passage written in the "pre-Freudian, pre-Jungian days of 1852":

> 'I catch myself philosophizing most abstractly when first returning to consciousness in the night or morning. I make the truest observations and distinctions then, when the will is yet wholly asleep and the mind works like a machine without friction. I am conscious of having, in my sleep, transcended the limits of the individual, and made observations and carried on conversations which in my waking hours I can neither recall

> nor appreciate. As if in sleep our individual fell into the infinite mind, and at the moment of awakening we found ourselves on the confines of the latter.' (qtd. in MAN 49-50)

The challenge for the human intellect is to find a way to access the irrational, unconscious realm of creativity and bring some part of it into an expanded consciousness.

Wilbur shares Thoreau's sense of mentally visiting during sleep a world of preconscious, prelinguistic awareness and knowledge that rapidly fades with awakening to the confines of consciousness and a world limited to thoughts that can be framed in words. Return to consciousness can bring with it a vague, uneasy awareness of a world lost. Therefore, Wilbur has developed a tactic (learned from Dante and Poe among others) that enables him to explore aspects of the mind that are not usually accessible to consciousness or logic: He places the persona of his poem on the borderland between the just-awakening consciousness and the just-fading world of sleep. In this border country of the mind, the standard rules of mental gravitation do not apply. The constraints of logic and ordinary sensory realism are loosened, and the mind gropes after vaguely understood possibilities. The poet/persona of Dante's Divine Comedy cannot rightly tell us how he entered the Inferno to begin his journey from Hell through Purgatory and then to Heaven because "so full of sleep was I about the moment that I left the true way" and only knows that he awoke to find himself "in a dark wood." In attempts to understand the mind, reality, and the mind's interactions with

realities beyond consciousness, Wilbur frequently resorts to suspending normal mentation--altering the consciousness by locating the poem's speaker in a half-sleep, half-dream state ("Love Calls Us to the Things of This World," "In Limbo," "Merlin Enthralled," "Walking to Sleep," "The Ride") or under a mind-altering influence ("Next Door," "A Voice from Under the Table," "The Undead"). Writing poetry on the boundary between the conscious and the unconscious mind, between logic and intuition, between what is real and what is dream or hallucination heightens Wilbur's perceptions and brings him closer to the mystery his poetry pursues. This strategy allows Wilbur to come as near as possible to unconscious or pre-linguistic intuitions while still preserving enough of conscious awareness to be able to speak of them.

Wilbur's poem "The Ride" expresses the just-awakening memory of a dream world that can only be suggested. The poem shimmers and trembles like a mirage that is most convincing just before it fades. It contains the aura of mystery, the sense of being drawn by some beneficent force through blank nothingness. The knowing in "The Ride" comes from underground; the faith it expresses comes from somewhere below consciousness:

> The horse beneath me seemed
> To know what course to steer
> Through the horror of snow I dreamed,
> And so I had no fear,
>
> Nor was I chilled to death
> By the wind's white shudders, thanks

To the veils of his patient breath
And the mist of sweat from his flanks.

It seemed that all night through,
Within my hand no rein
And nothing in my view
But the pillar of his mane,

I rode with magic ease
At a quick, unstumbling trot
Through shattering vacancies
On into what was not,

Till the weave of the storm grew thin,
With a threading of cedar-smoke,
And the ice-blind pane of an inn
Shimmered, and I awoke. (Poems 4)

The dream world has no concretions; the rider moves in a "horror of snow" and "the wind's white shudders." Even his comforts are vaporous and unformed--the warmth that comes from the veils of the horse's patient breath and "the mist of sweat from his flanks" (4). In his dream, the poet who loves and celebrates the solid, sensible things of this world travels through "shattering vacancies" to "what was not"--a not-place, an anti-matter universe that escapes characterization and ordering of words and consciousness.

Awakened by visual stimulation (a sensory arousal like the screech of the clothesline in "Love Calls Us to the Things of the World" and the unidentified sound in "In Limbo")--"the ice-blind pane of an inn / Shimmered, and I awoke"--the poet/rider is left

with a longing to get back to care for the horse that carried him through his dream:

> How shall I now get back
> To the inn-yard where he stands,
> Burdened with every lack
> And waken the stable-hands
>
> To give him, before I think
> That there was no horse at all,
> Some hay, some water to drink,
> A blanket and a stall? (Poems 4-5)

The horse suggests, in part, the mythic Pegasus, the symbol of poetic inspiration and the imagination, but it also conveys the sense of some vaguely understood but steadfast and benignant power. During his ride through the "horror of snow" and "shattering vacancies," the poet/rider "had no fear, / Nor was . . . chilled to death" because he was sustained and assured by the horse's "unstumbling trot" and magic ease. Like the ancient Israelites being led out of Egypt, the poet is protected and guided by cloud ("the veils of his patient breath / And the mist of sweat from his flanks") and pillar ("nothing in my view / But the pillar of his mane").[10] Despite diction loaded with implicit dread--horror, fear, chilled to death, white shudders, night, nothing, shattering vacancies, ice-blind--there is an abiding sense of sureness and faith in the invincible goodness of the steed the poet rides. Wilbur might have chosen as an epigraph for "The Ride"

Emerson's admonition to "Trust the divine animal who carries us through the world."

The thinning weave of storm--the lightening of sleep--allows the poet to be stirred by a thread of cedar-smoke and the shimmer of an ice-blind pane; awakened, he feels a desperate need to get back to provide for the beast who had cared for him before the real world, the world of consciousness and wide-awake logic, convinces him that "there was no horse at all." Just on the edge between the preconscious and the conscious, the poet's vision shimmers before it breaks. Awake, the poet believes the horse was part of a dream, but in the dream, the horse had a this-world realness--its warm breath blowing white clouds in cold air, its sweat vaporizing from warm flanks into cold air, the solidity of its mane rising steady in a world of vacancies. It is the realness of the horse that the poet loves and the realness of the animal's physical needs that the poet longs to assuage. The insubstantial mists--like the mind--arise out of solid substance--the chest and flanks of a warm-blooded, living but transient creature. For the beast which comforted and protected him amid shattering vacancies and "what was not," the poet longs to do similar service--see that the horse has the home comforts of food, water, warmth, and shelter. Yet the poet knows that his feeling of the horse's reality is temporary; he knows that the tunnel of consciousness will narrow his vision. While he is still close to the dream and feels it real, he wonders, "How shall I now get back . . . before I think / That there was no horse at all . . . ?" Ironically and

paradoxically, the real-world details made the dream real, but the real world will now crowd in and erase the poet's faith in the realness of the dream horse. He is left with a rapidly fading sense of a separate reality, with a longing to get back to the inn-yard to rouse the stable hands to tend the horse "[b]urdened with every lack." Awakening, the poet is left troubled by the sense that his wide-awake mind is deceiving him, denying him a deeper awareness and thereby causing him to fail an important obligation. For the moment of the poem, the poet holds on to the shadowy awareness of a world beyond consciousness.

In "In Limbo," Wilbur's again explores the nature of the conscious/unconscious mind by examining a half-awake state when identity and place and time are confused. The poem poses the problem:

> For a half-kindled mind that flares and sinks
> Dampened by a slumber which may be a child's,
> How to know when one is or where? (Poems 63)

The poem acknowledges the mystery of self--vaguely and confusedly perceived as consciousness regains ascendency and tries to reassemble the various times and places and ages and selves that come unglued or dis-integrated when the seemingly unified consciousness has lost the upperhand.[11] The various possibilities are provoked by a sound eliciting the question, "What rattles in the

dark?" For the half-kindled mind, there are a lifetime of answers--the noise of the blinds in the seaside house where he slept as a boy; the clank of a bent fan-blade of a hotel air conditioner listened to by an exhausted man; the sound heard by a young soldier, a military convoy "[t]roubling the planking of a wooden bridge" in "the shocked night of France." Puzzled, the listener cannot "in any case, forget and sleep"; something commands him to listen and review the possibilities. The sound may be the opening of the "hinged roof of the Cinema Vascello" with the "[c]rashed majors of a final panorama" or a "spume of music" from "adolescence and the Jersey night, / Where a late car, tuned into wild casinos, / Guns past the quiet house towards my desire." The poet/persona attaches great importance to identifying the sound because what the sound is determines, from the multitude of possible selves, who he is--young boy, yearning adolescent, frightened soldier, tired middle-aged man. If it is the blinds at Brewster rattling in the dark, "I am a boy then, sleeping by the sea." Time and identity are relative and fluid. The problem is "How to know when one is, or where?" (Poems 63).

The half-asleep, half-wakeful man in limbo imagines a dream of personal wholeness and unity--a kingdom where all the would-be rulers of consciousness set aside conflicting claims:

> Now I could dream that all my selves and ages,
> Pretenders to the shadowed face I wear,
> Might in this clearing of the wits, forgetting
> Deaths and successions, parley and atone. (Poems 63)

Hoping that these multiple selves will have the discussions that bring them out of enmity and opposition into a state of harmony, the poet recognizes that the rapproachment must come through words and that all the pretenders share a common voice:

> It is my voice which prays it; mine replies
> With stammered passion or the speaker's pause,
> Rough banter slogans, timid questionings--
> Oh, all my broken dialects together . . . (Poems 63)

But the "slow tongue which mumbles to invent / The language of the mended soul is breathless" as it hears "an infant howl demand the world." The inarticulate wail of the primal need for wholeness, the all of the world, takes away the breath that could frame the language to mend the soul.

Lying fearful in the dark, torn between anxious uncertainty and a tenuous hold on the facts of his personal reality, the poet struggles to know what is real:

> Someone is breathing. Is it I? Or is it
> Darkness conspiring in the nursery corner?
> Is there another lying here beside me?
> Have I a cherished wife of thirty years? (Poems 64)

Trying thus to ground himself in some sureness of identity, he has the sense of "a long susurrus"--a whispering whirlwind moving overhead toward the east and "recurrent day." This spiraling funnel, uncertainly of clockwise or counterclockwise air, seems to collect or

be made of of "our flagellate cries / Rising from love-bed, child-bed, bed of death." All human suffering and delight seem to swirl in this muttering sound of the susurrus as though all the selves mentioned in the first two stanzas join in a twining helix. Beyond this whirl of muted, rustling voices, the poet hears "farther still / Couched in the void," the sound he heard before which he now identifies as: "The god who dreams us, breathing out and in " (64). The poet/dreamer and all the world with him become only the phantasms of "the god who dreams us" and who may momentarily awake, collecting his thoughts and our existence with them.

Out of this confusion of selves, out of his pervasive sense of uncertainty about the nature of reality, and out of the failure of language to find the words to mend the soul, the poet reaches for the organizing principle of light thereby to challenge incertitude with substance: "Out of all that I fumble for the lamp-chain." Abruptly, the pseudo-daylight order asserts itself over the shifting, amorphous dream world of the dark. The world becomes recognizable and solid:

> A room condenses and at once is true--
> Curtains, a clock, a mirror which will frame
> This blinking mask the light has clapped upon me. (Poems 64)

Michelson finds this passage full of ironic uncertainty:

> 'Condenses' is a powerful verb, calling up those odd physical processes by which something seems to come of nothing, substance out of not-so-thin air. And what condenses out is not a mundane bedroom, but details which seem Daliesque,

> poised between dream and wakefulness. 'Curtains, a clock, a mirror': without diving for metaphoric significance, one can see here components of a surrealist still life, and if one must have conventional symbols, one can find them too, as the curtain, clock and mirror signify what the poem has been about--death and concealed truths, time, the self. (Richard Wilbur 26)

Michelson also points out the multiplicity of meanings "frame" suggests: "To be framed is to defined, or as it were, condensed and coalesced; it is also to be bordered, or circumscribed, and in common speech it means to be betrayed, deceived, undone by design or circumstance" (26). Thus, consciousness and the world-organizing light impose an order but do not erase ambiguity. Light claps a "blinking mask" on the manifold selves--gives them a perceived identity, a semblance of unity, but the dream world continues in the background--vague but ever-returning as "recurrent day."

The poet marvels that "when we choose to live again," "[h]ow quickly . . . / As Er once told, the cloudier knowledge passes." In his notes to The Mind-Reader poems, Wilbur mentions that Plato recounts the dream of Er near the end of The Republic. As the story is told by Plato, Er was a valiant man supposedly killed in battle who came back to life on his funeral pyre. He awoke to tell his assembled friends about his soul's journey out of his body to "the other world." There, in a marvellous place, Er had seen two openings leading to heaven and two to the underworld, and there Er learned that he had been brought "to carry tidings of the other world to mankind" (Plato 351). Listening to those returning from their thousand-year sojourns

in either heaven or hell, Er learned that deeds--good or bad--are recompensed tenfold in blessings or penalties in the afterlife. Er saw the place to which those who had completed their millenium of reward or punishment traveled. There, under the supervision of the Fates--the three daughters of Necessity--those souls ready to return to life on earth chose the lives to which they would be bound.[12] Er describes the place as dominated by a pure rainbow of the light which holds all the world together:

> . . . a place whence they could see a straight shaft of light, like a pillar, stretching from above throughout heaven and earth, more like the rainbow than anything else but brighter and purer. . . . there, at the middle of the light, they saw stretching from heaven the extremities of its chains; for this light binds the heavens, holding together all the revolving firmament, like the undergirths of a ship of war. (Plato 353)

However deceptive they may be, the mind depends upon sense perceptions--sound, sight , touch--to assure itself of a world. In Plato's fable and in Wilbur's poem, light is the chain that binds the world together into a seeming wholeness. Awakened in the dark, denied the composing force of light, the poet listens, hoping to hear a sound around which to shape a world. When the sound only increases his uncertainty, he reaches for the light chain to turn on a world. With light comes the wakeful, conscious mind.

According to Er, after the Fates had confirmed and made irreversible the choices of those soon-to-be-born-again, the

expectant souls camped on the Plain of Lethe next to the River of Unmindfulness, from which all were required to drink:

> Every man as he drinks forgets everything. When they had fallen asleep, at midnight there was thunder and an earthquake, and in a moment they were carried up, this way and that to their birth, like shooting stars." (Plato 359)

In Plato's recounting of the story of Er, the souls who had chosen to live again return quickly and as quickly the "cloudier knowledge" of the other world passes. Er alone, who was not allowed to drink of the water of Lethe, returns with the cloudier knowledge intact. Suddenly and unexplainedly, at dawn twelve days after his supposed death in battle, his spirit rejoins his body lying on its funeral pyre. For Wilbur, the story of Er and the unremembering souls serves as a metaphor for daily awakening. When we choose to "live again," we pass through layers of unconsciounsess to consciousness, with vague and tantalizing memories of dream lives which rapidly fade. Somewhere on the border between night and morning, between sleep and wakefulness we taste the water of Lethe, and for us, too, the cloudier knowledge passes. In a larger context, Er's story is also a metaphor for the Romantic sense of having being born into life and consciousness at the cost of a major lapse in memory and knowing. In his "Intimations Ode," Wordsworth describes birth as "but a sleep and a forgetting" and says that the light of "trailing clouds of glory" is gradually shaded until it fades "into the light of common day" (Wordsworth 281).

Wilbur concludes "In Limbo" with an affirmation that embraces the human condition of being a wanderer, truant from a world of completion and wholeness and left with insatiable longings.

> I am a truant portion of the all
> Misshaped by time, incorrigible desire
> And dear attachment to a sleeping hand,
> Who lie here on a certain day and listen
> To the first birdsong, homelessly at home. (Poems 64)

The poet accepts the misshaping effects of time, "incorrigible desire," and "dear attachment." Implicit in his "dear attachment to a sleeping hand" (his "cherished wife of thirty years") is the sense of inevitable loss and separation. Michelson says the adjective "certain" means "both what it says and the opposite." Certain can mean particular or specific--"a certain day"--but as Michelson suggests it can be used nonspecifically to denominate a certain day "when memory fails and we cannot recollect, for certain, which one" (26). Certain, in one word, underlines the uncertainty of the whole poem--"In Limbo." The poet discovers that as "a truant portion of the all," the phantasm of a dreaming god, he has no home in time, no place he can hold onto and take shelter in, no possessions--not even a self--that cannot escape his grasp. Nevertheless, on a "certain day" he lies "homelessly at home," gathered by delight in a sound as he listens to the first birdsong. He finds life worth the price of ambiguity, uncertainty, and finitude.

Startled into consciousness and untethered from his usual sensory moorings, the poet persona of "In Limbo" awakes to discover mind to be multiform, deprived of the usual conscious assemblage which is its mask. In the post-Einstein twentieth century, time and place and identity are relative, each depending on the point of view of the observer mind. A change in perception alters space-time, and causes identity to shift like the pattern-making fragments in a kaleidoscope. Mind is no longer comfortably unitary; we are confronted with the silent babble of many selves, a present crowded with past and future, and the haunting sense of a world forgotten or not yet known.

Just as the sense of a unified consciousness and the ordinary expectedness of reality become destabilized in the border country between sleep and wakefulnees, the mind can be unhinged from its normal moorings by a quirk in mentation or the effects of too much alcohol. Being loosened from the normal constraints on thought and perception, the drunken mind like "A Voice from under the Table" can, in its thirst, conceive "a fierier universe" and hear "the birds in the burning trees / . . . chant their holy lucid drunkenness" (Poems 247). The mind unhinged reveals in its abnormality some things about the normal. The hallucinations of madman or drunk or mystic challenge our perceptions of the nature of the world and put in doubt what is known. They also reveal the sometimes terrible burden of knowing. In one of his longest poems, "The Mind Reader," Wilbur

illustrates how the burden of what we "know" can keep us from what we do not know. The mind-reader of the poem becomes an exaggeration of the human condition--extraordinarily gifted and set apart by that mental gift, yet locked within the expanded though simultaneously narrowed world of enhanced perception. A dramatic monologue, "The Mind Reader" presents the speaker as an aging, alcoholic magus who tries to escape the burden of his gift in *mezzo-litros* of wine.

The "mind-reader" opens the poem by offering his audience of one some examples of things "truly lost"--objects which surreptitiously slip the leash of their owners' possession and disappear forever. He then contrasts the vanished objects with memories which the mind-reader says can never be truly lost. The vivid descriptions of person, place, thing, and action seem improvised by the speaker with specific details optional, dependent on taste or inclination. The speaker's off-hand comments and direct address to "you" invite the auditor to participate in the construction of the scenes or alter them as he will--" . . . a giant view of some description: / Haggard escarpments if you like." The reader is left with a cinematic sense of impersonal distance, as though witnessing what happens when no one is looking.

In contrast to three young women, "one, perhaps, in mourning," who talk in a "crenellate shade," a lost sun-hat seems playful and mischievous in its frolic with the wind:

A slight wind plucks
And budges it; it scuffs to the edge and cartwheels
Into a giant view of some description:
. . . .
. . . . The sun-hat falls,
With what free flirts and stoops you can imagine,
Down through that reeling vista or another,
Unseen by any, even by you or me. (Poems 106)

The phrase "that reeling vista" alludes to the dramatic landscape ("a giant view of some description") which the magus suggests as perhaps appropriate but not necessary in any specific detail to the sun-hat's fall:

Think of a sun-hat
Laid for the moment on a parapet
While three young women
Talk in the crenellate shade. (Poems 106)

The elements each suggest romance and mystery. The sun-hat and mourning dress suggest a time past. The parapet suggests a place with a past, and the "crenellate shade" evokes a darkness notched with light in the pattern of a castellated battlement.

The mind-reader offers the reader a dramatic backdrop, a landscape dynamic with percipience and flashing light; Wilbur's diction and imagery vivify the scene:

Haggard escarpments, if you like, plunge down
Through mica shimmer to a moss of pines
Amidst which, here or there, a half-seen river
Lobs up a blink of light. (106)

The words "haggard escarpments" convey in sound as well as meaning the torn, irregular declivity falling steeply away from a fortification. The "plunge down" is softened by the cushion of humming m's and the whispering s's in "mica shimmer to a moss of pines." Wilbur catches the abrupt, intermittent glints of light shot up from the "half-seen river" in the words he chooses for the mind-reader--" . . . here or there, a half-seen river / Lobs up a blink of light." The careful, vibrant diction and imagery are juxtaposed to the seeming off-handed causalness of the mind-reader's proposal of the tentative details--"Think of a sun-hat . . . "; "one, perhaps, in mourning"; "[h]aggard escarpments, if you like"; "amidst which, here or there . . . "; "With what free flirts and stoops you can imagine"; " . . . that reeling vista or another." The implication of the mind-reader's off-hand description is that the details are unimportant--subject to change as one likes or imagines. Yet, the brilliance of the description of the sun-hat's fall makes the details seem of the first importance--they are what capture the reader/auditor's imagination. Anthony Hecht describes this scene as a "suberb visualization of motion, of diminution into irretrievable distances." Hecht points out, however, that "for all the specificity of imagery, the event is all conjectural, hypothetical, the work and motion of the mind itself. The sun-hat is merely proposed as a subject for thought, everything it moves through is contingent" (129). The "free flirts and stoops" of the sun-

hat's "floating, limpid descent becomes a metaphor for the imagination, the graceful motions of the mind" (129).

The poet/speaker next offers two comparable disappearances, each in equally splendid imagery. The first comparison presents a scene utterly changed from the romance of three girls, one in mourning, on a ragged escarpment. The scene becomes mundane and present tense:

> It is as when a pipe-wrench, catapulted
> From the jounced back of a pick-up tuck, dives headlong
> Into a bushy culvert. (106)

Though the scene is everyday, the word choice and images are powerful and exact. The pipe-wrench, flung as though hurled from a catapult, flies from "the jounced back of a pick-up truck." "Jounced" sounds and says the motion of a vehicle with a bad suspension jarring along on a rough road. The reader can see the wrench's headlong dive into the oblivion of the overgrown culvert. Though this scene has a far different aura than the one with the sun-hat, the likenesses are both real and subtle. They share the imagery of a falling object headed down a precipice; the word "catapulted" subliminally connects with the earlier "crenellate" and "escarpments" to conjure up medieval battlements.

The second comparison likens the sun-hat's fall to a book slipping off a cruise ship into the sea:

> . . . a book

> Whose reader is asleep, garbling the story,
> Glides from beneath a steamer chair and yields
> Its flurried pages to the printless sea. (106)

The book--perhaps of words as carefully constructed as this poem--is doubly lost. Its reader falls asleep reading and thereby confusedly intertwines the book's content with a dream. The book itself follows the incline of gravity and the motion of the waves and slides into the sea. It leaves no mark, no imprint on "the printless sea." Michelson finds the sea "printless" in three ways: "the fallen book leaves no imprint, no track on the surface; the sea is itself printless, inscrutable; and it is "printless" meaning inexpressible, for no language, no quantity of print, will penetrate its mysteries" (55).[13]

Next, the mind-reader makes a larger comparison by contrasting the off-hand ways in which objects can vanish with the way memories can be hidden but are never lost or shed:

> It is one thing to escape from consciousness
> As such things do, another to be pent
> In the dream-cache or stony oubliette
> Of someone's head. (106)

These lines imply that disturbing, important matters may also "escape from consciousness," be submerged in mental seas or lost in some culvert of the mind, but just as the hat, the wrench, the book exist out of consciousness, so do the memories stored in dream-cache and stony oubliette. Coming from the French verb *oublier* meaning to forget, *oubliette* refers to a narrow dungeon, usually with a trap

door at the top as its only opening. A prisoner could be penned in the cramped darkness with only room to stand and be forgotten--left first to go mad and then to starve. The mind-reader has access to these dark holes, these oubliettes in other people's heads, but he suffers from his gift. He is himself trapped inside his burdensome perception and clairvoyance.

The mind-reader tells us that his gift of second sight was discovered when he was a child:

> They found, when I was little,
> That I could tell the place of missing objects.
> I stood by the bed of a girl, or the frayed knee
> Of an old man whose face was lost in shadow
> *When did you miss it?*, people would be saying
> *Where did you see it last?* (106)

Even then his gift was an oppression. He describes the episodes as turbulence and approaching storm:

> And then those voices,
> Querying or replying, came to sound
> Like cries of birds when the leaves race and whiten
> And a black overcast is shelving over.

In description that echoes the thought terrain of the the title poem of his previous volume of poems, "Walking to Sleep," Wilbur has the mind-reader describe his interior world:

> The mind is not a landscape, but if it were
> There would in such case be a tilted moon

> Wheeling beyond the wood through which you groped,
> Its fine spokes breaking in the tangled thickets.
> There would be obfuscations, paths which turned
> To dried-up stream-beds, hemlocks which invited
> Through shiny clearings to a groundless shade;
> And yet in a sure stupor you would come
> At once upon dilapidated cairns,
> Abraded moss, and half-healed blazes leading
> To where, around the turning of a fear,
> The lost thing shone. (107)

The mind-reader locates the "lost thing" in a mental landscape. In the first stanza, he created landscapes in which to lose a sun-hat, a wrench, a book; in the third stanza he conjures an obscure, mysterious, mental landscape in which to find lost things. Amid broken moonlight and groundless shade, come the certain signs--"dilapidated cairns / Abraded moss, and half-healed blazes." The lost thing pursued through obfuscations and bottomless darkness is found "around the turning of a fear." Mary Kinzie describes the chief imaginative accomplishment of "The Mind-Reader" to be its "rendering of the quirky, subjective mind as a place like the world into which things can disappear. The mind can and does literally absorb the concrete things with which it has engaged so that keys, photos, and ultimately lost eras of the heart reside in a place of thought" ("The Cheshire Smile" 18).

The mind-reader creates three vignettes to suggest the tentative, vague, suppressed awareness of "things put out of mind." In the first he asks us to "[i]magine a railway platform":

> The long cars come to a cloudy halt beside it,
> And the fogged windows offering a view
> Neither to those within nor those without.
> Now, in the crowd--forgive my predilection--
> Is a young woman standing amidst her luggage,
> Expecting to be met by you, a stranger.
> See how she turns her head, the eyes engaging
> And disengaging, pausing and shying away. (107)

In his second metaphor for the forgotten/not forgotten, the mind-reader suggests "a lost key hangs / Trammeled by threads in what you come to see / As the webbed darkness of a sewing basket, / Flashing a little" (107). The third comparison suggests "a photograph / Misplaced in an old ledger, turns its bled / Oblivious profile to rebuff your vision, / Yet glistens with the fixative of thought" (107). The mind-reader considers the phrase "things put out of mind" a "queer saying" because he knows that nothing is forgotten but just stuffed below consciousness in some "dream cache or stony oubliette." Thought is a fixative:

> What can be wiped from memory? Not the least
> Meanness, obscenity, humiliation,
> Terror which made you clench your eyes, or pulse
> Of happiness which quickened your despair. (107-108)

The mind-reader declares with finality that "nothing can be forgotten, as I am not / Permitted to forget" (108).

He informs us that it was not far from his childhood clairvoyance to "this corner cafe table" where now an old man with "lank grey hair and vatic gaze" he sits and drinks "at the receipt of

custom"--receiving latter day publicans and sinners.[14] The seer ennumerates the list of those who come to seek this knowledge and assistance: "Sad women of the quarter," "blinking clerks," "men of affairs," fellow drunkards, "fashionable people" who are both "[m]ocking and ravenously credulous," and the skeptics bent on proving him a fraud "for fear that some small wonder, unexplained, / Should leave a fissure in the world, and all / Saint Michael's host come flapping back" (108).[15]

To all comers, the mind-reader gives paper and pencil and then turns away to light a cigarrette. He performs an act that grossly mimics the oracle of Delphi:

> They write their questions; fold them up; I lay
> My hand on theirs and go into my frenzy,
> Raising my eyes to heaven, snorting smoke,
> Lolling my head as in the fume of Delphi,
> And then, with shaken, spirit-guided fingers,
> Set down the oracle. (108)

The mind-reader admits to his auditor who has witnessed the act ("as you have seen me do") that this mumbo-jumbo is "trumpery" but also insists that "nine times out of ten / What words float up within another's thought / Surface as soon in mine . . ." (108). He also acknowledges that "[i]n the tenth case," his gift fails and "I cheat a little." Recognizing that he has shocked his listener, the mind-reader defends his occasional duplicity against the world's unfair judgment:

But consider: what I do
Cannot, so most conceive, be done at all,
And when I fail, I am a charlatan
Even to such as I have once astounded--
Whereas a tailor can mis-cut my coat
And be a tailor still. (108-109)

As in most dramatic monologues, the reader learns not only about the speaker but also about the person to whom or of whom the monologist speaks. Scattered throughout the poem are clues to the auditor; they come as off-hand asides, the speaker's assumptions concerning the "you," and the the auditor's interests and reactions as conveyed by the mind-reader. The mind-reader assumes that the listener is an attentive and active participant in these ruminations. He invites his audience of one to "[t]hink of a sun-hat"; he tailors his descriptions to what he thinks will please the auditor--"Haggard escarpments, if you like . . . ." He simply assumes his listener's willing and active imagination ("With what free flirts and stoops you can imagine," "Imagine a railway platform . . .") and a shared perspicacity ("Unseen by any, even by you and me"). He includes the auditor as an actor in his imagined landscapes-- "And yet in a sure stupor you would come" and " . . . a young woman standing amidst her luggage, / Expecting to met by you a stranger" and " . . . a lost key hangs / Trammeled by threads in what you come to see / As the webbed darkness of a sewing basket." The mind-reader considers his listener someone to whom he can confess the "trumpery" of his

Delphic-oracle act but recognizes that his confession to "cheating a little" when the one time out of ten his gift fails seems to shock his friend. He reassures the listener that he can speak to him of his failures because the listener knows '"that I have the gift, the burden." Rhetorically, he asks the listening you, "What should I tell them?" and then confesses "I have no answers." Commenting on his clients, the mind-reader tells the listener his bitter truth that those who come to him are "[m]ute breathers . . . of selfish hopes / And small anxieties." Regarding "faith, justice, valor / All those reputed rarities of soul," the mind-reader confirms that "you may be sure that they are rare indeed / Where the soul mopes in private, and I listen" (109).

Wondering "if the blame is mine; / If through a sullen fault of the mind's ear / I miss a resonance in all their fretting," the mind-reader asks his companion what *he* thinks:

> Is there some huge attention, do you think,
> Which suffers us and is inviolate,
> To which all hearts are open, which remarks
> The sparrow's weighty fall, and overhears
> In the worst rancor a deflected sweetness? (109-110)

Poignantly, the speaker confesses to his friend, "I should be glad to know it"--to know of the existence of such a sentient and forgiving intelligence.

Unlike "some huge attention" which is able to see the smallness and sordidness of interior, private selves but remain inviolate--pure

and unblemished--the mind-reader feels burdened and sullied by too much knowing. Not capable of the saving grace of hearing a deflected sweetness and longing to be spared the consciousness of the sordidness he perceives all about him, the mind-reader bears the burden of his gift by narrowing his regard. He practices "the shrewd habit of concupiscence / Which like a visor narrows my regard." Earlier in the poem, when the mind-reader envisioned "a young woman standing amidst her luggage" on a railway platform, he asked his auditor to "forgive my predilection." Generally, concupisence suggests lust, but it can also mean any strong or ardent desire--either a longing of the soul for what will give it delight or for what is agreeable to the senses. Soul-delight having escaped him , the mind-reader dulls his longing in part with sensual desire. He has found another partial anodyne--by "drinking studiously," he can numb his brain "until my thought / Is a blind lowered almost to the sill." He hankers for oblivion, "that place beyond the sparrow," longs to be lost truly--"Where the wrench beds in mud, the sun-hat hangs / In densest branches, and the book is drowned"--"to escape from consciousness." His friend understands him. Ironically, the mind-reader's mind is read and the *"professore"* obliges him:

> Ah, you have read my mind. One more, perhaps . . .
> A mezzo-litro. Grazie, professore. (110)

The reader is left wondering if the "professore" is not one of those skeptics bent on proving the mind-reader a fraud--one of those who

fears that some small, unexplained wonder might "leave a fissure in the world" and room for the trailing in of things that reason cannot explain. Has the mind-reader encountered one of the "tenth cases" whose thoughts he cannot penetrate? Does he mistakenly assume his listener's belief in "the gift, the burden"? Perhaps the shock the *professore* manifests when the mind-reader admits that he has to fake his clairvoyance one time out of ten is not chagrin at the savant's duplicity but disconcertion that the confessor can actually read minds nine times out of ten!

Rather than violating the sanctity and privacy of the minds he reads, the mind-reader himself feels violated: "Whether or not I put my mind to it, / The world usurps me ceaselessly" (109). Wilbur's poem is based on a "mind-reader" whom the poet met in Rome in 1954 (qtd. in "Craft Interview" 86). The man told Wilbur that his mind, possessed by the world, was "like a common latrine" (Acts of Mind 140). So befouled, the mind-reader describes his "gift" as a burden:

> . . . my sixth
> And never-resting sense is a cheap room
> Black with the anger of insomnia,
> Whose wall-boards vibrate with the mutters, plaints,
> And flushings of the race. (109)

Wilbur creates a Sartrean image of a being trapped forever awake in a cheap hotel room where the thin walls transmit rather than muffle the discontent, the whinings, and the psychic excrement of all those

who happen to share the same time and space. Like Prufrock, the mind-reader's awareness suffers "restless nights in one-night cheap hotels," and like Prufrock he is led "to an overwhelming question" for which he has no answer: "What should I tell them? / I have no answers" (109). Without answers for himself or his customers , the mind-reader scribbles the vaguely consoling generalities that palmists and astrologers offer their clients:

> *Set your fears at rest,*
> I scribble when I must. *Your paramour*
> *Is faithful, and your spouse is unsuspecting.*
> *You were not seen, that day, beneath the fig-tree.*
> *Still, be more cautious. When the time is ripe,*
> *Expect promotion. I forsee a message*
> *From a far person who is rich and dying.*
> *You are admired in secret. If, in your judgment,*
> *Profit is in it, you should take the gamble.*
> *As for these fits of weeping, they will pass.* (109)

The mind-reader's consciousness has become a trap; he is the prisoner of his own gift.[16] For him, the only consolation is to numb himself into oblivion.

The mind-reader's predicament can be seen to be as a metaphor for the human condition. We, too, are gifted with mental powers which seem far in excess of those possessed by other species. Like the mind-reader, we have an enhanced capacity for awareness --not only for seeing what is there but also for making what is there. Like the mind-reader, we set the scene; our flaunts of imagination launch the sun-hat on its free fall down the escarpment of our

interior landscape. Like the mind-reader, we suffer from knowing and memory. We are tortured by what we know of ourselves and what we know or suspect of others; our minds are mined with oubliettes of festering rot. Like the mind-reader, human beings hunger for either forgetfulness or cleansing absolution. We long to believe in some forgiving intelligence willing to see past our sin to some hoped for sanctity. Despite the mind-reader's longing for oblivion to erase his misery of knowing, there is a kind of triumph in this poem, in what is otherwise a dismal picture of the burden of consciousness. Underlying the mind-reader's burden is the maker, the poet's delight. The poem itself is a virtuoso expression of what the mind can see and say, what consciousness can make of the world. The dazzling imagery and metaphors bespeak an awareness that loves the things of the world. The poet's attention to and sympathy for the figure of his creation suggest a sensitivity that indeed hears "[i]n the worst rancor a deflected sweetness." The poet's compassion itself affirms the possibility of "some huge attention . . . / Which suffers us and is inviolate," an attention "which remarks / The sparrow's weighty fall"--a God made in the poet's image.

The mind portrayed in Wilbur's poems is a restless, craving creature trapped in a space too small for its longings. Like a bird which has blundered through an open window into a small room, the mind struggles to escape the limitations of consciousness and sensory perception. Flying like a bat in dark cave, the mind may perform the unbat-like feat of not just detecting a wall of stone but flying

through it--by graceful error and happy intellection changing the shape of the cave. Insight may come not just through words--the sonar-like instruments of the mind, the tools for thought--but through the defeat of words: "Down vistas of vain attempt / . . . for a flying moment one may see." The mind, though trapped in consciousness and the sensory world, may experience intuitions of a larger reality when it is untethered by sleep or a quirk in mentation from the moorings of the ordinary daylight, expected world. The "blinking mask" of identity may slip revealing the multitude of voices stretched across space-time, voices hidden in a seemingly unitary self. Despite extra-ordinary perspicuity, the mind has trouble reading itself and experiences the vague, nagging sense of having forgotten something. Sometimes knowing itself seems a trap that keeps the mind from the alluring unknown, and sometimes knowing is a threat and a reminder. The mind itself is part of that unknown, one of the final mysteries, but it is a mystery locked in time. A creature of earth-time with a vision of space-time, the mind beats its wings against the cage of mortality, looking with dying eyes for the sill of eternity.

The Wound of Time

In his Confessions, Augustine said that his mind burned to solve an intricate puzzle "at once so familiar and so mysterious": "My problem is to discover the fundamental nature of time and what power it has" (271). Musing over the problem, Augustine decided

that "time is merely an extension" but he did not know of what it was an extension. Then he began to wonder if time is not "an extension of the mind itself" (274).

Wilbur's poem "The Mill" asks about the mind--the puzzling way it works and the conundrum of what happens to the workings of the mind when the individual mind stops working. "The Mill" begins with the poet's remembrance of a friend's dying thoughts and rambling odds and ends of memories. The "spoiling daylight" inching along, "[o]range and cloudy, slowly igniting lint" parallels the fading mind as it hazily gropes among and illuminates briefly the fuzzy sheddings of a lifetime. In his own mind, the poet speaks to his dead friend:

> . . . still your voice,
> Serene with failure and with the ease of dying,
> Rose from the shades that more and more became you.
> Turning among its images, your mind
> Produced the names of streets, the exact look
> Of lilacs, 1903, in Cincinnati . . . . (Poems 276)

The poet wonders if the dying man's miscellanous recollections are simply "--Random, as if your testament were made, / The round sums all bestowed, and now you spent / Your pocket change, so as to be rid of it" or if he spoke with more serious intent: "Or was it that you half-hoped to surprise / Your dead life's sound and sovereign anecdote?" (276).

For the poet, one among his friend's tellings does indeed achieve the status of a "sound and sovereign anecdote." The poet remembers best his dead friend's description of "the wrecked mill / You stumbled on in Tennessee." Sheepishly and ironically, the speaker asks "or was it / Somewhere down in Brazil?" and admits, "It slips my mind / Already" (Poems 276). The facts of the story slip away, but the truth of it remains. The mill becomes a metaphor for a mind's working in a solitude overgrown with thoughts and memory and a symbol for some mysterious, inexorable force at the wild center of all being:

> . . . there it was in a still valley
> Far from the towns. No road or path came near it.
> If there had been a clearing now it was gone,
> And all you found amidst the choke of green
> Was three walls standing, hurdled by great vines
> And thatched by height on height of hushing leaves.
> But still the mill-wheel turned! its crazy buckets
> Creaking and lumbering out of the clogged race
> And sounding, as you said, as if you'd found
> Time all alone and talking to himself
> In his eternal rattle. (Poems 276)

Three times in this poem Wilbur uses the word *still*--"still your voice," "in a still valley," "But still the mill-wheel turned"--to create both the hush in which to hear a dying voice and the constancy of a perpetual motion. The poet asks himself what has happened to all his friends' thoughts and memories since the mind that turned them is gone:

> How should I guess
> Where they are gone to, now that you are gone,
> Those fading streets and those most fragile lilacs,
> Those fragmentary views, those times of day? (Poems 276)

Though nearly all the events and memories of his friend's life have died with him, the poet has one certainty:

> All that I can be sure of is the mill-wheel.
> It turns and turns in my mind, over and over. (Poems 276)

The friend's image, the force of his "dead life's sound and sovereign anecdote," continues its work in the poet's imagination and becomes a symbol for the pervasive, mysterious energy that, locked into an individual being, longs to preserve itself. Michelson says that "The Mill" is an elegy not just for a friend but "for the ultimate loss of every mind's accumulated lore, its perceptions, its special intuitions, its own strange, perishable, and perhaps wonderful connections" (Wilbur's Poetry 5).

"The earth makes wraiths of us," Eiseley warns in "Men Have Their Times" (AKA 33). In his poem "From Us without Singing" Eiseley rages against the earth's death claim on all the living, against "the ugly innocent necessary work of nature / . . . carried on by beetles, ants, blowflies"--those processes that return a dead bird and a man's thoughts to "the wheel of existence."

> all those immediate molecular transpositions

that ensure
the endless procession of pine needles, new eggs,
new birds and in their turn
new deaths. (NOAA 51)

The poet imagines his own thoughts dissolving like a rotting bird, both *disarticulated*.

I do not understand very well
where thought goes, I resent the slow
disarticulation of this summer bird and his own
particular eye, to be a transplant
in a beetle's stomach.
I am bound like this bird
to my own carcass, I
love this year's light,
the music in his, my mind. (NOAA 51)

Eiseley finds no comfort in the promise of "reentering the wheel of existence." What he craves is consciousness: "I want to know / where thought is restored / and memory under this one summer's sun" (52). Since he was "born in cyclone time, raised out of glacial dust," Eiseley demands that if he must give up thought and reenter the eternal cycle:

let it be on the scale of my hatred,
let me crawl with boulders like the diamonds on a snake's
back,
let me coil ice and utter silence,
if there can be no thought,
halfway around the world. (NOAA 52)

Time made nature natural and time made mind. As humankind came to see the world as natural and the mind itself as one of manifestations of nature evolved over time, we discovered the problem with time: Time *made* mind. Time *makes* mind. And, in the end, time *unmakes* mind. Mind is time-bound, stuck in mortal flesh: "mind is locked in matter like the spirit Ariel in a cloven pine. Like Ariel, men struggle to escape the drag of the matter they inhabit yet it is the spirit that they fear" (NC 145). Eiseley says that humankind suffers from "the wound of time--that genius of man, which, as Emerson long ago remarked, 'is a continuation of the power that made him and that has not done making him'" (MAN 55). When human beings acquired the self-awareness that we call consciousness and left behind "the safe confines of the instinctive world of animals," we acquired "otherness" and became supremely conscious of our own mortality (55). Eiseley says that we suffer, therefore, from "the ability of the mind to extend itself across a duration greater than the capacity of mortal flesh to endure," and that we are left with a gnawing hunger--"this mind which, mortal and encased in flesh, would contain the past and seek to devour eternity"(55). We are the prisoners of time, maimed by our evolutionary wound. We are both "abstracted out of time yet trapped within it: the mind, by chance distorted, locked into a white-ribbed cage which effervesces into air the moment it approaches wisdom" (56). Like the heart Yeats describes in "Sailing to Byzantium," the mind "knows not what

it is" but that it is "sick with desire / And fastened to a dying animal (Yeats 191).

Writing about Francis Bacon and Bacon's "uncanny sensitivity to time," Eiseley quotes historian Frederich Meinecke's description of the discovery of history and "world time" as "'one of the greatest spiritual revolutions which western thought has experienced'" (qtd. in MWSTT 61). According to Eiseley, western thinkers have had to revise their conception of time, its length and its effects, twice--first from the brief, contained few thousand years of Judeo-Christian time to "eons of inconceivable antiquity" and then with greater difficulty "to perceive that this lengthened time-span was peopled with wraiths and changing cloud forms" rather than a fixed chain of divinely created immutables (IP 14). As the concept of time was extended back to a barely imaginable point when life was only potential, the concept of form suffered a similar change: Living flesh itself came to be seen as alterable. What had once seemed to be stability of form came to be understood as "an illusion fostered by a few millenia of written history" (IP 15). Given the longview of time, we have been forced to see all things as flux, momentary manifestations in the progression to becoming something else.

In his introduction to his volume of poems The Innocent Assassins Eiseley wrote that during his paleontological work as a young man his mind had been imprinted "by the visible evidence of time and change of enormous magnitude" (IA 233). Describing his own personal struggle with "the wound of time," Eiseley writes of a

morning when, "surfeited with the smell of mortality and tired of the years . . . spent in archaeological dustbins," he had ridden "into the past on horseback" (FOT 160). In "a black cloud of merciless thought," he had decided it was time to face up to "the dust and the broken teeth and the spilled chemicals of life seeping away into the sand" (160):

> It was time I admitted that life was of the earth, earthy, and could be turned into a piece of wretched tar . . . that man had as little to do with his fate as a seed blown against a grating. It was time I looked upon the world without spectacles and saw love and pride and beauty dissolving into effervescing juices." (FOT 161)

On horseback, Eiseley entered a world left by the glaciers that once covered much of the northern hemisphere--"places scoured by ancient ice action, through boulder fields where nothing moved, and yet where one could feel time like an enemy hidden behind each stone" (161). He and his horse traveled "in an eternal dangerous present" (161).

As he dropped through "gloomy woods and canyons," his mind "cleansed and scoured" by the wind that smelled alternately of ice and snow, of cedar or desert "began, like the water in those rumbling gorges, to talk in a variety of voices, to debate, to argue, to push at stones, or curve subtly around obstacles" (FOT 162). Eiseley wonders "whether we are only endlessly repeating in our heads an argument

that is going on in the world's foundations among crashing stones and recalcitrant roots" (162).

> 'Fall, fall, fall,' cried the roaring water and the grinding pebbles in the torrent. 'Let go, come with us, come home to the place without light.' But the roots clung and climbed and the trees pushed up, impeding the water, and forests filled even the wind with their sighing and grasped after the sun.
>
> (FOT 162)

All matter, organic and inorganic, seems bound in a perpetual debate between the entropic pull toward annihilation and the life-shaping urge to take on form, however temporary, against oblivion. And Eiseley says that same debate between form and oblivion goes on inside our heads: "It is so in the mind. One can hear the rattle of falling stones in the night, and the thoughts like trees holding their place" (FOT 162).

In a passage that has the surreal quality of moving through a dream, Eiseley, traces life back through time as he rides down the mountainside. The journey down begins after a night spent listening to the world's argument roaring like a mountain storm in his head and he himself holding on "like the roots that wait for daylight." The journey began and ends in vacancy. It began at the mountain top among stones "dotted with pink and gray lichens--a barren land dreaming life's last dreams in the thin air of a cold and future world" (FOT 163). Moving downward, Eiseley passed a meadow mouse among fallen petals--a symbol of the golden age of mammals before

the ascendence of man. Then he traveled back into the "reptilian dark," through "the stiff, endless green forests" of the Age of Dinosaurs and past a wary green lizard on a rock. As things "grew more lonely," he came to the small, grubby life on the barren ridges of an old sea beach that had long ago become desert floor; there he saw the "hot, warning scarlet of peculiar desert ants" flash among the stones and felt as though he had lost all trace of himself. From under one of the stones came a scorpion, "old enough to know the secret" of human origin, raising its poisoned tail in warning. Possessed by an "enormous emptiness," Eiseley came again to a vacancy like the thin air of the mountain's peak--"to the end of all things in the cold starlight of space" (164). After passing "some indefinable bones and shells in the salt-crusted wall of a dry arroyo," Eiseley finally arrived at waves of sand dunes where life became invisible: "It was like coming down to the end--to the place of fires where we began" (164).

Realizing that life had gone from desert bush to towering pine, "from these dry, envenomed things to the deer nuzzling a fawn in the meadows far above," Eiseley wondered about the nature and meaning of life:

> . . . my mind went up that figurative ladder of the ages, bone by bone, skull by skull, seeking an answer. There was none, except that in all that downrush of wild energy that I had passed in the canyons there was *this other strange organized stream that marched upward*, gaining a foothold here, tossing there a pine cone a little farther upward into a crevice in the rock. (FOT 165; emphasis added)

The question he asked of the past, he also asks of the future, "'Why did we live?'" He could hear no answer: "The living river flowed out of nowhere into nothing. No one knew its source or its departing. It was an apparition. If one did not see it there was no way to prove that it was real" (165). This strange organized stream of life can only be proved real by the mind itself: " . . the mind, in some strange manner so involved with time . . . has yet its own small skull-borne image of eternity . . . . the human mind can transcend time, even though trapped, to all appearances, within that medium" (165-166).

Eiseley presents two other examples of his mind traveling back and forth through time, mixing past, present, and future. Personally and phylogenetically, he sees himself as a wraith and shape-shifter--one of the many forms living matter assumes over time. First, he remembers himself as a child and young man, the suffering and challenges that shaped his character. With fear and anguish, he moves in imagination and memory about the vanished youth like a ghost: "I exhort, I plead. He does not hear me. Indeed, he too is already a ghost. He has become me. I am what I am" (FOT 166). Eiseley's other illustration of the mind slipping the shackles of the present creates an image that is quietly terrifying--half Hieronymus Bosch, half Rene Magritte. In the classroom, the anthropology professor experiences "a chink torn in a dimension life was never intended to look through" (167). While translating "three billion years of time into chalk scrawls and uncertain words," he is asked by

a student if he the teacher believes that there is a direction to evolution. Eiseley hears the words of the question become "a faint piping"; he sees "an eager scholar's face squeezed and dissolving on the body of a chest-thumping ape":

> I see it then--the trunk that stretches monstrously behind him. It winds out of the door, down dark and obscure corridors to the cellar, and vanishes into the floor. It writhes, it crawls, it barks and snuffles and roars, and the odor of the swamp exhales from it. That pale young scholar's face is the last bloom on a curious animal extrusion through time. (FOT 168)

The image leaves Eiseley wondering which of the many shapes is real, "or if, perhaps, the entire shape in time is not a greater and more curious animal that its single experience" (168). He has a sense of himself with a loathesome trunk stretching behind him on the floor and knows himself to be "a many-visaged thing that has climbed upward out of the dark of endless leaf falls, and has slunk, furred, through the glitter of blue glacial nights" (168). He, too, is a part of that strange organizing stream moving upward: "I am the unfolding worm, and mud fish, the weird tree of Igdrasil shaping itself endlessly out of darkness toward the light" (168).

With such experiences, Eiseley is able to persuade himself that human beings "are not wholly given over to time" or "such leaps through the gray medium, would be impossible" (FOT 166). He also has a sense that a change in knowing has occurred. He believes that the mind of man is becoming "a little microcosm, a replica of whatever it is that, from some unimaginable 'outside,' contains the

universe and all the fractured bits of seeing which the world's creatures see" (166). The brain which opens this world makes the knower a castaway with no refuge in time--"a terrible new sense has opened a faint crack into the Absolute" (169). Seeing through time, experiencing this sense of strangeness, Eiseley confronts a great mystery--the mystery "that life and time bear some curious relationship to each other that is not shared by inanimate things" (169). Erleen J. Christensen describes Eiseley's concepts of time as "a form of religious belief." She believes that Eiseley was "trying to deal with death and loss by seeing the larger perspective, feeling part of some larger time span than a human lifetime" ("Loren Eiseley, Student of Time" 31).

In his poetry, Wilbur, too, looks at this "wound of time" and the mind's struggles to understand the force which both makes and, inevitably, unmakes it. With an equal feeling of mystery but with more faith and less terror, Wilbur expresses the same sense of the link between life and time and of the uncanny, urgent, insistent life force that drives through animate matter. In his poem "Seed Leaves," Wilbur presents this mystery and this force contained in the form of a dicotyledonous plant:

> Here something stubborn comes,
> Dislodging the earth crumbs
> And making crusty rubble.
> It comes up bending double,
> And looks like a green staple.
> It could be seedling maple,

Or artichoke, or bean.
That remains to be seen.

Forced to make choice of ends,
The stalk in time unbends,
Shakes off the seed-case, heaves
Aloft, and spreads two leaves
Which still display no sure
And special signature.
Toothless and fat, they keep
The oval form of sleep. (Poems 129)

In these two stanzas, Wilbur succinctly describes the process whereby a dicotyledonous seed comes to life as a seedling. The "seed leaves" of the title refers to the cotyledons, the leaf-like structures inside the external seed coat; these cotyledons initially digest food from the endosperm as the seedling grows and later become the plant's first leaves. Exposed to moisture, the seed coat softens and splits allowing the hypocotyl to press downward to become the primary root and the epicotyl to curve upward like a green staple, eventually pulling the seed of epigeal plants (like beans) above ground. The uncovered cotyledons (seed leaves) open causing the torn seed coat to fall away. The cotyledons become the oval, undifferentiated first leaves; the first "true" leaves bearing the characteristic shape and markings of the species to which the plant belongs grow from the plumule as the stalk lengthens. With the true leaves the plant takes on the identity--including the innate time limits--of its species.

The line "[f]orced to make choice of ends" implies both biological and philosophical choosing. Biologically, the plant is compelled to grow in one direction or the other. The plant must choose between its ends: The hypocotyl presses downward to become the root; the epicotyl curves upward in an arc until it has the length and strength to lift the seed out of the soil. The line also conveys the inevitablility of ends--a seed must either germinate or die. If it germinates, the seedling may grow into a mature plant, propagate its own seeds, and die. The choice of time-bound, living things is among "ends." Wilbur describes the plant's two competing but mutually exclusive urges--

> This plant would like to grow
> And yet be embryo;
> Increase, and yet escape
> The doom of taking shape;
> Be vaguely vast, and climb
> To the tip end of time
> With all of space to fill,
> Like boundless Igdrasil
> That has the stars for fruit. (Poems 129)

The small seed longs to expand without limitation in time or space. Happily, it would become "vaguely vast" like the world tree Igdrasil (Yggdrasill) of Norse mythology--the timeless ash which served as the axis of all the levels and worlds of creation, the tree which "always was and waves over all that is" and would survive even

Ragnarok, the battle between gods and men, giants and monsters at the end of time (Crossley-Holland 174).

However, one desire overpowers the other; some undeniable, invisible force commits the seed to taking shape, accepting the doom that comes with form called out of the infinite, accepting, as Eliot wrote in "East Coker," that "[i]n my beginning is my end."

> But something at the root
> More urgent than that urge
> Bids two true leaves emerge . . . . (Poems 130)

The seed leaves are stirred by the force that stirs the "Fern-Beds in Hampshire County"--

> Whatever at the heart
> Of creatures makes them branch and burst apart,
> Or at the core of star or tree may burn
> At last to turn
> And make an end of time . . . . (Poems 125)

The invisible urge which pushes from inside the seed is both time-bound and perpetual. Somehow the limitation of finitude seems to give the biological urge its strength; an internal clock knows the time for life is brief and must be seized. The urge itself is perpetuated, however, despite the death of an individual plant. There is a wonderful paradox here: Taking shape, becoming individual dooms the plant but preserves its form in propagated seed--the form and the urge become eternal, hidden and perpetuated in the seed. The

propagated seeds are envelopes for the invisible force and pattern that continually re-emerge. Even when specific patterns are broken by extinction, variants of the design continue--e.g., dinosaurs faded Escher-like into birds. The unspecified drive--the "something stubborn," "something at the root"--is perhaps best expressed in Wilbur's poem "In the Field" which immediately follows "Seed Leaves"; there he describes "the heart's wish for life" as "the one / Unbounded thing we know" (Poems 133).[17]

The form of the poem "Seed Leaves" mimics its content. The first two stanzas are eight lines of iambic trimeter put together in rhymed couplets. The rhythm of the simple meter and the sound of the predictable rhymes rock the poem in the contained, oval forms of sleep. These two stanzas " . . . display no sure / And special signature"; they are "toothless." The last two stanzas, however, are each jagged--notched by the oddness of an added, defining line. The ninth line of the third stanza rhymes with the first of the nine lines of the fourth stanza so that the last two verses become a pair of "true leaves" following the pair of undifferentiated "seed leaves" of the first two verses.

Driven by the more urgent urge to shake off oblivion, "[t]he oval form of sleep," the plant accepts the loss of substanceless eternity for the sake of temporal being:

> And now the plant, resigned
> To being self-defined
> Before it can commerce
> With the great universe,

Takes aim at all the sky
And starts to ramify. (Poems 130)

"Self-defined" implies the genetic heritage that determines that a maple cannot become an artichoke but also implies the inevitable variations in conditions and choices--ramifications--that insure that one maple is not another maple, that each artichoke is unique. "Self-defined" also suggests the identity acquired by taking on the limits of a self as opposed to remaining indistinctly part of the "all." Ramify has two specific denotations. Ramify in one sense means enlargement--to branch out or to spread or extend in the form of branches into a number of offshoots or subdivisions. In another sense, ramify means diminution--to break up or separate into branches or analogous parts. Thus, the word ramify suggests both increase and attrition--becoming more means becoming less. The plant, as it grows, grows from larger to smaller. Taking shape requires giving up mass for form, but only in that way can the plant become a presence among other presences and thereby commune with the rest of creation--"take aim at all the sky." The plant, "resigned / To being self-defined," accepts the necessity of taking shape and accepts the limits which will define its otherness.[18] The compensation is that it can then "commerce / With the great universe." One of the meanings of Wilbur's well-chosen verb *commerce* is to communicate or have intercourse in the affairs of life. The "affairs of life" exist in time among time-limited creatures.

Annie Dillard writes that the world has signed a pact with the devil and that the terms are clear:

> If you want to live, you have to die . . . . The world came into being with the signing of the contract. A scientist calls it the Second Law of Thermodynamics. A poet says, 'The force that through the green fuse drives the flower / Drives my green age.' This is what we know. The rest is gravy. (Pilgrim 181)

Wilbur presents in "The Undead" the counter urge to the powerful drive to take on form in the temporal, finite world where death is indeed the mother of beauty, where taking shape dooms all things that come to life. In a note to "The Undead" at the end of his collection Advice to a Prophet and Other Poems, Wilbur supplies a definition of *vampire* from the Standard Dictionary of Folklore, Mythology, and Legend: "'One of the types of the undead, a living corpse or soulless body that comes from its burial place and drinks the blood of the living'" (Poems 227). The tone of the poem (which begins with a past tense reprise of the fear that begat the Undead) is a mixture of fascination, disgust, pity, and identification or fellow-feeling for the "Undead" who, even as children, were late sleepers--preferring dreams to the ever-threatening potential of a mutable world--

> Preferring their dreams, even when quick with monsters,
> To the world with all its breakable toys,
> Its compacts with the dying.
> (Poems 196)

The child vampires chose to live in an unreal world of dreams, even if that world were to be alive and writhing with monsters, rather than risk the real world of time where "breakable toys" shadowed childish happiness with the ever-present threat of coming apart, of disassembling. The real world makes its compacts with the dying. All living things share an implicit covenant with the world of being: life and form can be only temporary and will be withdrawn at some future, unspecified date acccording to the tacit contract entered into by all mortals. Life will always be time bound.

The vampires rejected this compact; they shrank from all signs of change, "fearing contagion of the mortal." Not only did they see "the stretched arms of withered trees" as harbingers of winter and death, but so, too, "the plums of summer." Ripeness precedes rot; fruit implies the seed which mortals bear to pass on the life they can give away but not hold. The vampires became emblems of not-life, drifting under the summer plums "like winter moons"--distant, pale, aloof--high above the time-bound world.

> Secret, unfriendly, pale, possessed
> Of the one wish, the thirst for mere survival,
> They came, as all extremists do
> In time, to a sort of grandeur . . .
> (Poems 196)

The Undead, "possessed / Of the one wish, the thirst for mere survival," set themselves apart by the intensity and singularity of

their obsession. It is ironical that these "extremists" came to "a sort of grandeur" *in time*. Their rejection of time--the deliberate choice to give up "their first lives" in the "vulgar town"--and their embrace of undeath made them stark and frightening. They become insatiable predators, feeding their "thirst for mere survival" on the lifeblood of mortals. With the moon (one of nature's clocks), the vampires rise "to their Balkan battlements"--Transylvania, their legendary place of origin, a province of Romania on the Balkan peninsula--soaring above "the vulgar town of their first lives"--the shabby mortality of things breakable and passing. The poet observes another paradox:

> Strange
> That their utter self concern
>
> Should in the end, have left them selfless:
> Mirrors fail to perceive them as they float
> Through the great hall and up the staircase;
> Nor are cobwebs broken.
> (Poems 196)

Although they are undead, the Vampires have indeed met an end; for, "in the end," they are left selfless. Self can only be determined through relationship with what is not self. Abhoring untidy, mortal relationships, the Undead lose that definition and become self-less. They lose their boundaries and become so substanceless that their passing cannot even tear a cobweb.

Called to their perpetual and obligatory predation, these Undead stoke[19] the mind's eye--i.e., stir up and fire their imaginations--

> With lewd thoughts of the pressed flowers
> And bric-a-brac of rooms with something to lose,--
> Of love-dismembered dolls, and children
> Buried in quilted sleep.
> (Poems 196)

Here, "lewd" takes the meaning "inciting to sensual desire or imagination." The vampires must excite themselves by thinking of the ephemeral things of this world. The "pressed flowers" and "bric-a-brac" convey a sense of nostalgia; they are emblems of times past, lovingly remembered. With pressed flowers, people struggle to hold some bit of beauty from a dance, a wedding, a garden, a funeral; the dried flowers symbolize the transient matter to which is attached deep feeling. "Bric-a-brac" suggests the memorabilia, the tokens of affections, souvenirs of trips, and treasured heirlooms that litter and decorate our rooms and lives.[20] The pressed flowers and fragile ornaments are also symbols of life itself. The living, in contrast to the Undead, always have "something to lose." The Undead have immortality--therefore, nothing left to lose; they have already sacrificed everthing to mere survival. They have, in their undeath, already lost time and change and all the dear attachments of a time-bound world.

The vampires' "lewd thoughts" also include "love-dismembered dolls, and children / Buried in quilted sleep" (Poems196). The phrase "love-dismembered dolls" redeems the word dismembered from the movie image of a murderous, depraved madman who cuts up the bodies of his victims. In contrast, "love-dismembered" describes a doll so hugged and treasured, so clung to and lugged about that it finally comes apart, losing head or arms or legs, but still treasured and irreplacable in its brokenness. The description "children / Buried in quilted sleep" suggests the vulnerability both of the children and of the parents who adore these dearest of "dear attachments." "[Q]uilted sleep" conveys the warmth and comfort of bedcovering stitched lovingly and handed down through generations, but that image is undermined by the double sense of "buried." The children in quilted sleep are buried treasures, but the word buried also carries with it the omnipresent threat of death, that all we love is mortal--even our children. Vampires preserve their lives uncluttered from all these bric-a-brac potentials for loss, yet they must titillate their imaginations with images of all that they have renounced to achieve the "negative frenzy," the agitation and madness required to perpetuate their diminished existences:

> Then they are off in a negative frenzy,
> Their black shapes cropped into sudden bats
> That swarm, burst, and are gone.
> (Poems197)

Paradoxically, their craving for immortality becomes a lust for the mortal.

Despite their mystique and extremist grandeur, the poet does not find the Undead very impressive:

> Thinking
> Of a thrush cold in the leaves
>
> Who has sung his few summers truly,
> Or an old scholar resting his eyes at last,
> We cannot be much impressed with vampires,
> Colorful though they are. (197)

The poet loves the creatures of this fragile, tenuous world, those who give their lives to sing a "few summers truly" or pursue knowledge and meaning against the grain of time. Wilbur chooses to love breakable toys and to make inevitably painful compacts with the dying. He loves the things that cannot last, the flings of spirit in birdsong or scholarship, and the courage of "the Light-Dwellers, pouring / A life to the dark-sea" (Poems 135). Wilbur's thrush singing in winter calls to mind Hardy's "Darkling Thrush." In a landscape of spectre-gray frost and death-lamenting wind, Winter's dregs have desolated "[t]he Weakening eye of day," and --

> The ancient pulse of germ and birth
> Was shrunken hard and dry
> And every spirit upon earth
> Seemed fervourless as I.
> (Modern Poetry 50)

Amid this bleak scene comes a voice "In a full-hearted evensong / Of joy illimited." What Hardy admired, and Wilbur after him, was "An aged thrush, frail, gaunt, and small, / In blast-beruffled plume," a frail creature who "Had chosen thus to fling his soul / Upon the growing gloom" and sing in winter of the few summers of his life.

Yet, even though his sympathy lies with the mortal, Wilbur acknowledges the reality of the vampires' pain which "requires our pity." He asks the living who treasure the bric-a-brac and pressed flowers and broken dolls of a mortal life to have pity for the vampires' perpetual, incessant thirst, the consequence of their choice to become Undead:

> . . . Think how sad it must be
> To thirst always for a scorned elixir,
> The salt quotidian blood
>
> Which, if mistrusted, has no savor;
> To prey on life forever and not possess it.
> (Poems 197)

The "salt quotidian blood" which for the Undead has lost its savor tacitly alludes to Jesus' warning to "the salt of the earth" that salt which has lost its savor, "wherewith shall it be salted? it is thenceforth good for nothing but to be cast out, and to be trodden under the foot of men" (Matthew 5:13). For the vampires who have "mistrusted," life no longer has any zest or piquancy; they are left craving the "scorned elixir" which is to them tasteless. Wilbur creates an image which brilliantly captures the pathetic attempt of

something small and self-narrowed trying to hold something vast and changing, something that can be contained only within the mobile form of its own vastness:

> As rock-hollows, tide after tide,
> Glassily strand the sea.
> (Poems 197)

Hollows worn into sea rocks can contain only a tiny portion of the water and life of the sea. Though the small pools fill regularly with the tidal flow, the still, glassy water loses the very essence of the sea--the powerful, crashing motion of waves in constant change. The still water in the rock-hollows may gleam with the reflection of sunlight or moonlight, but their smallness estranges them from the sun and moon's power. The rock-hollow pools cannot be moved by the forces that move the sea--the spin of the earth as it turns on its axis and revolves around the sun, the tug of the moon's gravitational pull, the churning of thermal currents. The rock-hollows may strand a measure of the sea's substance, but they cannot become what they have chosen to leave; envious, the small pools lie trapped in failed attempts at mimicry. They prey on life but cannot possess it.

Of course, poets are vampires, preying on life, trying to strand in the rock-hollows of poems a portion of the vast sea of life, wringing the elixir from experience to taste its essence again and again. They would make the beautiful and changing, secure and

immortal in art. These "connoisseurs of thirst" have been tricked by joy:

> Joy's trick is to supply
> Dry lips with what can cool and slake,
> Leaving them dumbstruck also with an ache
> Nothing can satisfy. (Poems 41)

In contrast to the pallid Undead whose passage does not disturb a cobweb or cause a reflection in a mirror, the "October Maples, Portland" blush with "with a sanguine glow / As cannot fail to leave a lasting stain" (Poems 198). This poem which immediately follows "The Undead" celebrates the beauty that can come only to a dying world. Fall has turned the maples to scarlet gold; the autumnal beauty of these deciduous hardwoods results from the seasonal ebb and, like the flowers and green of spring, cannot last: "It is a light of maples, and will go" (198). Yet the light of these maples will not go "before it washes eye and brain / With such a tincture" as to stain our minds with remembrance and the intuition of eternity manifested in time:

> The leaves, though little time they have to live,
> Were never so unfallen as today,
> And seem to yield us through a rustled sieve
> The very light from which time fell away. (198)

Eternity manifests its beauty in the "fall." The dappled, shifting light shining through the dying, crimson-gold leaves becomes a "showered

fire," redeeming the air like the flaming tongues of Pentecost. The October maples make visible in time "the very light from which time fell away." Eternity seems to need time to manifest itself in beauty.

As "Seed Leaves," a spring poem, presents the urge to take on form despite the inevitable doom it entails, Wilbur's "Alatus," like "October Maples," presents the heroics of autumn when the subjects of time express "true valor" in "a rash consent to change." Using the diction of chivalric warfare, Wilbur creates an extended metaphor of battle to describe the autumnal rout of deciduous trees, "[t]heir supply-lines cut," going "down to defeat." With leaves "[t]urning, flying, but / Bravely so," the ash shakes "May light's citron flash" from blade and pennon (the flag used as an ensign by a knight or regiment of lancers).

> And rock maple, though
> Its globed array be shivered,
> Strews its fallen so
>
> As to mock the cold,
> Blanketing earth with earnest
> Of a summer's gold. (Poems 7)

The word "shivered" suggests both splintering (as of a lance) and the chilling of the coming winter. The fallen leaves of the rock maple are like battle dead, strewn as golden tokens of a summer's light. The fall begins with sumac's change to reddened leaves and ends with the oak still hanging on to sere brown leaves. Though "sumac-gore"

suggests clotted blood from a wound, and the "rattling oak" hints at rattling sabers and death rattles, Wilbur denies the metaphor that these and the earlier carefully selected diction and imagery have constructed:

> Still, what sumac-gore
> Began, and rattling oak shall
> End, is not a war . . . . (Poems 7).

He has used the diction of battle to set up the opportunity to speak of valor, a word commonly used to describe bravery in battle, but then declares that what he speaks of is not a war.

The title of this poem "Alatus" refers to the winged euonymus (*Euonymus alata*), a vase-shaped shrub whose bright green summer leaves ignite in early autumn to a dramatic, flaming red (Floyd et al 110). Quickly, two weeks before other foliage changes color, the winged euonymus becomes a burning "fire-bush"; when the leaves fall, the shrub is "circled / By a crimson verge / Of its own sifting" (Poems 7). The word *verge* means both something that borders, limits, or bounds and also the point marking the beginning of a new or different state or condition or action; verge suggests both end and beginning. With the "time's true valor," the alatus gives its own "rash consent to change." Affirming the power and rightness of a process that requires the shrub's acquiesence to "crumbling pallor, / Dust, and dark re-merge," the alatus--its bared stems winged by the flared, empty seed pods which have spilled their orange berry-seeds

and by the "wings" of one-half-inch-wide, flat corky growths projecting along the branches--stands a winter witness to the force which drives its temporal clock. The fire-bush alatus

> Bristles aloft its every
> Naked stem, lifting
>
> Beyond the faint sun,
> Toward the hid pulse of things, its
> Winged skeleton. (Poems 7)

The sculptural symmetry of the fallen bush--its holy fire burned out--becomes a silent testimony to a cycle that takes its momentum from "the hid pulse of things," the rhythm which binds the stars, the seasons, and leaf fall in a common cadence. The alatus participates in a vegetable faith in some larger all which requires decreation to renew creation. Wilbur's affirmation of the cycle offers, however, no easy consolations about spring resurrections; the leaves of the next spring are never the same leaves lost in the fall:

> Nor are leaves the same
> (Though May come back in triumph),
> Crumpled once by flame. (Poems 7)

The flame of fall continually destroys the individual leafy manifestations of life to make possible the process. Life requires valor, the rash consent to change. John P. Farrell says that Wilbur envisions "two kinds of change, disintegrative and metamorphic" and

that a reverence for life becomes possible when we can reconcile the disintegrative changes with "the metamorphic and regenerative life of the universe" ("Beautiful Changes" 189). Though not without its tragic consequences, change makes possible plenitude.

As the change of decreation makes new life possible, it also erases the mistakes of the past. For Wilbur, the inexorable processes of time bless nature with a redemptive, corrective power which can obliterate the botches of human making--those objects made without awareness of or fidelity to the nature of things. In "Junk"--written in the strong, alliterative form of Anglo-Saxon verse as though following the grain of the language to give a tempered, seasoned strength to the poem--Wilbur recognizes this betrayal among a variety of ashcan discards. The "shivered shaft" of an axe handle that is "hell's handiwork"--

> The flow of the grain
> the wood not hickory,
> not faithfully followed.
> (Poems 185)

He sees also

> . . . the sheer shards
> That were not annealed
> of shattered tumblers
> for the time needful
>
> . . . .
>
> a cast-off cabinet

Of wavily-warped
unseasoned wood
(185)

The poet cringes with shame at the compromise of both self and material that these pieces of junk represent:

The heart winces
For junk and gimcrack,
for jerry built things
And the men who make them
for a little money,
Bartering pride
like the bought boxer
Who pulls his punches . . . . (185-186).

The axe-maker failed the nature of the wood by using an unsuitable type and by not following the grain to use the wood's natural strength, the form which could add resilence and vigor to the function.[21] The cabinetmaker, in a hurry to make something for money, was untrue to the nature of his material; he did not age and dry the lumber so that later, as it did dry out, the finished product warped out of shape. The glassmaker failed to anneal the glass of the shattered tumblers for the time needed. Annealing is toughening or tempering glass from a highly brittle state by continuously exposing it to a slowly diminshing heat. In each case, the failure to be true to the nature of things also represents a failure to season and anneal the maker, to find the hard, true grain of self. Both self and substance are betrayed.

Yet, despite the human failure and despoilation, Wilbur finds redemption in the nature of things:

> Yet the things themselves
> in thoughtless honor
> Have kept composure,
> like captives who would not
> Talk under torture. (Poems 186)

The shards and fragments of junk tossed on the dump " . . . shall waste in weather / toward what they were."

> The sun shall glory
> in the glitter of glass-chips,
> Foreseeing the salvage
> of the prisoned sand,
> And the blistering paint
> peel off in patches,
> That the good grain
> be discovered again.
> (Poems 186)

The botched products of human making will be burnt, bulldozed, and then buried "To the depths of diamonds / in the making dark" (186). Through the process of decreation, the materials debased or ill-used will be biodegraded and then reassembled--the way rotted ferns are, over eons, transformed by "the making dark" into oil or coal or diamonds. Enormous power and mystery inhabit the lines,

> in the making dark
> Where halt Hephaestus

keeps his hammer . . . .
(Poems 186)

They contain the sense of some awe-inspiring, subterranean urge, some creative making that is, like gravity, one of the shaping forces of the universe. And like "halt Hephaestus"--the lame and ugly smith, architect, and armorer to the gods--the innovative force is a creative, therefore imperfect, power.

But the process of redemptive unmaking comes with a price: just as the broken remnants of shoddy manufacture waste toward what they were, "Wayland's work" is also "worn away." The epigraph to "Junk" is a sentence from a fragmentary Anglo-Saxon poem in which the speaker Waldere tells of the legendary smith Wayland. Wilbur translates the Old English: "'Truly, Wayland's handiwork--the sword Mimming which he made--will never fail any man who knows how to use it bravely'" (Poems 227). Deftly, in one line broken by a caesura, the poet tells us that the work of the master craftsman, an object as fine as the sword Mimming, will also be worn away--like the junk and gimcrack and jerry built things--"in the making dark." And so will all things and all makers in the world of time. Knowing this, Wilbur the poet has fashioned a poem made like the sword Mimming out of the hard steel of Anglo-Saxon-like verse, full of alliteration, stress, and pause. In "Junk" Wilbur affirms the creativity and redemption made possible in time without denying that redemption has its price.

In a later poem written "To the Etruscan Poets," Wilbur echoes this theme of things excellently crafted lost to the inexorable processes of time:

> Dream fluently, still brothers, who when young
> Took with your mothers' milk the mother tongue,
>
> In which pure matrix, joining world and mind,
> You strove to leave some line of verse behind
>
> Like a fresh track across a field of snow,
> Not reckoning that all could melt and go. (Poems 55)

Though they had striven in the "pure matrix" of language to join "world and mind," the Etruscan poets were sculptors in snow. The Etruscan alphabet originated in the eighth or ninth century B.C., but the written language gradually disappeared from its Tuscan homeland as Latin became ascendant. Today, the language is mainly undecipherable despite the survival of more than 11,000 inscriptions. Though the Etruscan poets were legendary in the classical world for the beauty of their poetry, their handiwork fell into the making, unmaking dark that awaited the sword Mimming and the jerrybuilt things. Yet, out of the stilled voices of his lost brothers, Wilbur himself makes a rhyme, even though he knows that in the scheme of creation he, too, is a sculptor in snow. Stirred by "the hid pulse of things," he becomes a maker, replicating the infinite act of creation by not requiring that his making last.

Eiseley as well as Wilbur anticipated the death beyond death--his words lost in time. Speculating on the beginning of the printed word, Eiseley imagines "how a man in Sumer / half the world and millennia away" saw the imprint of birds' feet in the drying mud and thought--

> there is a way of saying upon clay, fire-hardened,
> there is a way of saying
> 'loneliness'
> a way of saying
> 'where are you?' across the centuries
> a way of saying
> 'forgive me'
> a way of saying
> 'We were young. I remember . . . .' (AKA 16)

Eiseley identifies with the men of Sumer who etched their longings in clay: "We are the scriveners who with pain / outlasted our bodies." Tablets with inscriptions in the language of ancient Babylon date back to 4000 B.C., but the language has been extinct since the third century B. C. Holding a hand ax that had survived from the ice age, Eiseley writes that though "out of fashion / a hundred millennia, / . . . you can still / recognize its true purpose." The same is not true of words which get "knocked out of shape" or take "some other meaning / not given to stones / before they die." He wishes it were possible "to fix a word between us / which would last in the torrent / longer than slivers of bone" (NOAA 91). Human messages and artifacts inevitably become part of the indecipherable flux of nature.

Eiseley concludes that "[e]verything drifts by fire and flood and ruin into the final ambiguous lettering of the earth's own book of stone" (ASH 212).

Leaving a carved stone among "The Little Treasures" in the outwash fan of a dried glacial stream, Eiseley thinks of his personal artifact lying there "when earth's perturbed orbit / drifts toward the final dark" (AKA 57). His stone will make its meager contribution to this world's end: "My stone will stretch the shadow of the last evening." Haunted by the fact that human life is the flicker between two darks, Eiseley recognizes the origins of the human urge to leave behind shaped stones:

> For what else have stones been shaped
> but to prolong the human presence and to say
> soundlessly in lost tongues:
> We loved the earth
> But could not stay?
> We it was and not the immortals
> who shaped the stones. (AKA 57)

In another poem "The Builders" from The Innocent Assassins, Eiseley writes that "I think myself that we are mated to the stone, that we were born / long, long ago from caverns, menhirs, cromlechs, dolmens" (49). Born of such "rough elements," man "[a] stone-caressing animal," creates out of the same need that created man.

In his poem "Children of Darkness," a sanguine and light-hearted variation on the theme of "The Undead," Wilbur celebrates the silent,

dark unmaking that is part of nature's continuous creativity in the world of time.[22] In the first two lines of what Frank McConnell calls "certainly the best fungoid lyric in English" (37), the poet humorously challenges the naive romanticism which characterizes a wood as a temple of natural purity: "If groves are choirs and sanctuaried fanes / What have we here?" His answer describes assorted fungi which, unlike other plants (as his footnote tells us), do not have "true roots, stems, leaves, or fruit, and do not increase by means of chlorophyll and light. They were early associated with darkness, snake-pits, witches, devils, and evil in general" (Poems 112). Wilbur answers his "What have we here?" with a witch's stew of ill-begotten parts breeding and feeding on broken trees and moldering leaves:

> An elm-bole cocks a bloody ear;
> In the oak's shadow lies a strew of brains.
> Wherever, after the deep rains,
>
> The woodlands are morose and reek of punk,
> These gobbets grow--
> Tongue, lobe, hand, hoof or butchered toe
> Amassing on the fallen branch half-sunk
> In leaf-mold, or the riddled trunk.
>
> Such violence done, it comes as no surprise
> To notice next
> How some parodically sexed,
> Puff, blush, or gape, while shameless phalloi rise,
> To whose slimed heads come carrion flies. (Poems 80)

These "Children of Darkness" whose "gift is not for life" exist as saprophytes, feeding on the decaying organic material and making "it

their pleasure to undo / All that has heart and fiber" (80).[22] They mimic the forms (ear, brains, tongue, lobe, hand, hoof, toe, phallus) "which they eschew."

Yet Wilbur sees redemption in the children of darkness; they are nature's agents in the endless process of creation out of decreation: "What these break down / Wells up refreshed in branch and crown." They reduce the forest debris to organic mulch, composted nutrients for the elm, oak, aspen, beech, and pine they grow among. Wilbur invites the reader to reconsider the old superstitions and fables about the wood fungi:

> May we not after all forget that Norse
> Drivel of Wotan's panicked horse,
> And every rumor bred of forest-fear?
> Are these the brood
> Of adders? Are they devil's food,
> Minced witches, or the seed of rutting deer?
> (Poems 80-81)

Wilbur finds among the children of darkness clear water, good food, color to delight the eye, and imagery for the imagination:

> Nowhere does water stand so clear
>
> As in stalked cups where pine has come to grief;
> The chanterelle
> And cepe are not the fare of hell;
> Where coral schools the beech and aspen leaf
> To seethe like fishes of a reef,
>
> Light strikes into a gloom in which are found
> Red disc, grey mist,

> Gold-auburn firfoot, amethyst,
> Food for the eye whose pleasant stinks abound,
> And dead men's fingers break the ground. (Poems 81)

For Wilbur, these children of darkness are "[g]argoyles . . . at worst." Even if they should flaunt themselves as something else--"demons, ghouls, or elves"--they would be wrapped in the interplay of light and shadow that composes all of being:

> The holy chiaroscuro of the wood
> Still would embrace them. They are good. (81)

Though time, like the god Shiva, destroys as it creates, Wilbur has faith in the world's goodness and the hard benificence of nature. For Wilbur, the earth is "no outer dark / But a small province haunted by the good" (Poems 20).

As Wilbur finds in his poems "Junk" and "Children of Darkness" a measure of consolation and even delight in the agents of time which wear away of all things, he also finds in time a fidelity, an assurance that certain natural phenomena can be counted on to repeat themselves and that human beings can, as Emerson wrote, come to understand the mysterious relation of mind and matter. In his small poem "Gnomons" that assurance is made of sunlight and shadow (like"the holy chiaroscuro" in "Children of Darkness") and the communion of minds separated across thirteen centuries. The word *gnomon* comes from a Latin and Greek verb meaning to know. In those languages a *gnomon* was an interpreter, discerner, or pointer.

In English, gnomon refers to "an object that by the position or length of its shadow serves as an indicator, especially of the hour of the day" (Webster's Third New International Dictionary). On an ordinary sundial, the gnomon is the style, pin, or plate set parallel to the earth's axis so that its shadow on the dial tells the hour of the day. In Wilbur's poem, the earth is the sundial and two men--first the Venerable Bede and then the poet himself--take turns being the shadow-casting gnomon.

In "Gnomons" Wilbur remembers and then tries to reproduce a simple observation and discovery made by Bede, a Benedictine monk, thirteen centuries earlier. Called "the greatest English writer of the age" and the "medieval scholar *par excellence*," Bede lived most of his life (c. 673-735 A.D.) at his order's monastery at Jarrow where he pursued his devout and scholarly interests in history, scripture, hagiography, science, and rhetoric (Greenfield 15). His extant writings in Latin include "the lore of Christendom"--his church history (*Historia Ecclesiastica Gentis Anglorum*), treatises on time (*De Temporibus* and *De Temporum Ratione*), and studies of various natural phenomena in *De Natura Rerum*.

In the first stanza of the poem, Wilbur reports Bede's observation, made in eighth-century England, of the length of a man's shadow cast by the sun at the third hour after dawn.

> In April, thirteen centuries ago,
> Bede cast his cassocked shadow on the ground
> Of Jarrow and, proceeding heel-to-toe,
> Measured to where a head that could contain

> The lore of Christendom had darkly lain,
> And thereby, for that place and season, found
> That a man's shade, at the third hour from dawn,
> Stretches eleven feet upon the lawn. (Poems 6)

In the same sun's light but in another April more than a thousand years later, the poet tests the written record left by the Venerable Bede: "[H]is tables in my hand," Wilbur repeats Bede's "heel-to-toe" measure by pacing off "[f]oot after foot" the distance his shadow casts in "April sunlight." Across centuries, Wilbur re-proves the accuracy of Bede's calculation and conclusion--"a wall / On which he knew my shadow's end would fall" despite "[w]hatever dark might plague the age." Nature's light--the power of the sun to cast the same length of shadow three hours after dawn in another time, adjusted to another place--could be counted on to endure "[a]s April's green endures" (Stevens 6). The "fidelity of time" tested by the phenomenon of shadow length cast in a particular time in a particular month, the calculation adapted to the latitude of Massachusetts instead of Northumbria, unites the minds of the monk and the poet across a millenium. Bede's gifts for wonder and careful observation are revivified in the poet's encounter with the living words of the dead monk. "[W]armed by the fidelity of time," Wilbur makes with Bede's "sun-ringed head a dusky rhyme."

Bede's head is "sun-ringed" in the sense that the morning sun behind him haloed his head as he tested the length of his shadow in the monastery gardens at Jarrow and in the sense that the light of saintliness glowed around him. Bede's head is also "sun-ringed" in

the sense that it trails clouds of glory. Wilbur shares with Bede a reverence and delight in the measurable regularities of the creation and in the human mind that longs to measure them. Wilbur is awed at the possibility that, through Bede's record written thirteen centuries earlier, he can share that reverence across death and time. Wilbur calls his rhyme "dusky"--i.e., "characterized by slight or deficient light" or "obscure, partially hidden"--because "Gnomons" can only hint at the vastness of order and urge implied by their shared curiosity and subsequent proof of the fidelity of time.[24] The poem itself is a gnomon, a pointer that tells of the light by casting revealing shadows in dusky rhymes. The human mind, the mind of nature seeking to know itself, burns with the energy and light of the sun--and like the sun casts shadows as it makes light. The mind is like a candle lit from a great flame; the shadows cast by its flickering are themselves evidence of some greater light.

Both Eiseley and Wilbur have an intense awareness of time as the powerful, inexorable force that moves through matter, binding and loosing, making and unmaking, appointing death as it allots life. For Eiseley, time is a fierce, impersonal, and terrifying duality made of a "downrush of wild energy" mated to a "strange organized stream" that marches upward. Tantalized by the seeming progress of life into more and more complex forms over time, Eiseley wonders why the mind has evolved to bear witness to these patterns that only the mind itself can prove real. Outside of the human mind, the

strange organized stream marching upward is not discernible. For Eiseley the mind itself seems to have become a clumsy imitation in miniature of a vast, cosmic awareness that contains all the fragments of creation bound into exquisite and intelligible patterns: "a little microcosm, a replica of whatever it is that, from some unimaginable 'outside,' contains the universe and all the fractured bits of seeing which the world's creatures see" (FOT 166). Having opened "a faint crack into the Absolute," the mind knows both too much and too little. It becomes a castaway, aware like any animal of diurnal and seasonal time, but also flung onto the vast sea of cosmic time. The mind is left struggling with two mysteries--first, the mystery of the strange relationship which binds life and time and second, the mystery of why a mind should evolve longing to find the answer to the first.

Wilbur's vision of time is more present tense than Eiseley's and his terror is refined into an awed affirmation of the process. Instead of stepping back to see the grand patterns over eons, Wilbur sees the cosmic represented in forms immediate and close at hand--in a dicotyledenous seedling, an alatus bush, and October maples. He acknowledges the hard fact that the living must make inevitable compacts with dying, that the heart's wish for life is so strong that it will pay the necessary price and accept that doom comes with taking shape in time. For Wilbur, life becomes an occasion for valor, for "the rash consent to change." To make the coward's choice of "mere survival" would leave one preying on life, but not possessing it.

Wilbur also finds redemption in time. Time unmakes to make again, salvaging the botched and the beautiful to be recycled through decreation into new creation. But Wilbur's consolation is neither off-hand nor easy. Time tosses everything, including the sword Mimming and Etruscan poetry into the furnace of nature's "making dark." Everything, no matter how exquisitely wrought, has its end in its beginning. Even so, Wilbur finds in the destroyers, the "children of darkness" whose "gift is not for life," another expression of the creation's indomitable will toward being: "What these break down / Wells up refreshed in branch and crown" (Poems 80). Time has a fidelity that the searching mind can discover.

The mind which grew out of nature has discovered, in part, the nature of nature. Investigating its origins and finding them "natural," the mind has also discovered how awe-inspiring and mysterious "natural" is. As Eiseley describes it, the concept of life arising from inert chemicals and evolving from procaryotic cells to lungfish to hominid to human requires as much faith and more imagination than any traditionally religious creation myth. The rapid mutation of mind into an organ capable of visualizing worlds invisible to sense has altered the nature of nature as we see (don't see) it. Mind, through the process of becoming, discovered first historical then cosmic time. With that discovery, cosmos became a four dimensional abstraction of space-time which can only be

described in terms of the speed of light and is forever beyond our direct knowledge.

Mind has discovered not only this outer space but also its inner space. The interior world of the mind is as vast, mysterious, and puzzling as the world outside. Identity has become shifting, amorphous, and multivocal, a function relative to time and space and others. Freeing us from instinct but also depriving us of instinct, consciousness tremendously expands awareness but also simultaneously confines awareness to a world expressible in symbolic thought and analogy. Wilbur describes the mind as trapped by time and its own limitations, searching in words for the way through to the larger reality. The known tends to exclude the unknown so that intuitions of the unconscious and preconscious remain inexpressible unless we can create enough fissionable metaphor to explode through the walls of perceived conclusions. Paradoxically, the failures of logic and words bring consciousness to the border of the elusive and ineffable that exist just outside our knowing.

Four hundred years ago, Francis Bacon saw Nature as a second Book of Revelation, unclouded by the human error and confusion that surrounded the first. Believing that nature holds whatever is, including "'vast and unusual swells . . . outrages and insurrections'" within "'her inextricable net, wove as it were of adamant,'" Bacon longed "'to make the mind of man, by help of art, a match for the nature of things'" (qtd. in MWSTT 85-86). Eiseley, like Bacon,

believed that the worlds hidden in nature and time could only be discovered by great acts of the human imagination (MWSTT 62). Yet, part of the hiddenness of nature is within the human mind itself. Discovering "the nature of things" will require enough imagination to understand imagination.

CHAPTER III

IMAGINATION AS MORAL AGENT

His self and the sun were one
And his poems, although makings of his self,
Were no less makings of the sun.

--Wallace Stevens

The poet, like the lightning rod must reach from a point nearer the sky than all surrounding objects down to the earth, and into the dark wet soil, or neither is of use.

--Emerson

To imagine is an act which give human beings the chance to engage in something akin to creation.

--Rene Dubos

. . . the poet makes the terms themselves. He does not make judgements . . . he only makes them possible--and only he makes them possible.

--Owen Barfield

What is our praise or pride
But to imagine excellence, and try to make it?
What does it say over the door of Heaven
But *homo fecit*?

--Richard Wilbur

During the "Age of Reason" and the establishment of the Galileo/Newton scientific paradigm, Immanuel Kant made clear the contrast between two perceived realities which constantly

confronted his consciousness and created an insuperable conflict: "Two things fill the mind with ever new and increasing awe and admiration the more frequently and continuously reflection is occupied with them; the starred heaven above me and the moral law within me" (Kant 261). Kant saw that, relative to the scale of the universe, we human beings are infintesimal and inconsequential specks of matter; but with respect to our interior sense of conscience-compelling moral law, we may perceive ourselves as agents of some higher purpose which dignifies and gives importance to our individual existences. Given these two seemingly irreconciliable realities, we may experience what William Barrett in Death of the Soul calls, "the separation of the natural and the moral, the cleft between man as moral agent and nonmoral universe" (91). Throughout history people have expressed the feeling of being haunted by "some spiritual destiny beyond the material order," but we can experience that intuition only in the context of our understandings of the material world. Our vision of the cosmos and our sense of ourselves as beings of moral consequence interpenetrate and determine one another. As Barrett writes, "Our beliefs about the universe enter into our view of morality. Our ethical being is projected against some imagination of the cosmos as a whole" (111).

Ambrose claimed in the *Hexameron*, that it is in the imagination that human beings resemble the Creator:

> The soul therefore is after the image of God, being measured not by bodily but by mental activity, for it sees those who are absent, casts its gaze upon things across the sea, scans them with its glance, examines what is hidden, and hither and thither in a single moment makes its perceptions range throughout the limits of the world and the secrets of the universe . . . . (qtd. in Clemoes 67)

Imagination is the nonlogical, preverbal process whereby the conscious and the unconscious aspects of the mind have contact with one another and with the world. Through imagination we learn about the world outside us and discover the world inside us. Through the imagination we can change both worlds for better or worse. Emerson said that the "[t]he very design of imagination is to domesticate us in another, a celestial nature." Defining "presence" as "not what is evanescent and passes but [what] confronts us waiting and enduring" (64), Buber says that the imagination can lead us to come to grips with the "living active being that confronts us" and that such imagination is "the drive to turn everything into a You" (78). Maurice Merleau-Ponty in *Le Visible et L'invisble* defines "Being . . . as *'that which demands creation from us* in order for us to have experience of it'" (qtd. in Falck 51; Merleau-Ponty 251).

Both Eiseley and Wilbur have a romantic sense of poetry arising from a preverbal, preconscious world of subterranean imagination where intuition makes discoveries not available to logic. Wilbur describes the process of writing a poem as "translation from the preverbal":

> I happen to think, in the teeth of certain philosophers, that there are preverbal thoughts from which we fumblingly begin. Don't we often, well before the 'idea' of a poem has begun to clarify, feel an odd certainty about the proportions of what is coming on, about its tenor, savor, stance, or mode--about the channels of logic or feeling in which it is going to run? (qtd. in Honig 176)

Beginning in a kind of "speech-before-speech," Wilbur says "the subject before we fully know it, seems to have done a good deal of occult marshalling" (qtd. in Honig 177).

Eiseley, like Thoreau, saw in the artist an intense self-awareness which was both a burden and a delight and which insisted on expression (NC 216). In The Night Country, Eiseley writes of his belief that "we mirror in ourselves the universe with all its dark vacuity and also its simultaneous urge to create anew, in each generation, the beauty and terror of our mortal existence" (196). He says that both the artist and the scientist "bring out of the dark void, like the mysterious universe itself, the unique, the strange, the unexpected" (NC 204). Eiseley describes great art as "the night thought of man" which emerges "without warning from the soundless depths of the unconscious, just as supernovae may blaze up suddenly in the fartherest reaches of void space." In response to such creative eruptions, "critics, like astronomers, can afterwards triangulate such worlds but not account for them" (UU 64). Freud described the unconscious as a roiling mass of competing irrational urges; Eiseley believed that interior void contained limitless potential for good as well as evil: " . . . out of the depths of unreason, the murkiness of the

subconscious, have come also some of the most poignant works of great art and literature. Even scientists have, on occasion, acknowledged indebtedness to that subterranean river" (ST 210).

Falck declares that all language has its foundation in a process of "pre- or extra-linguistic intuition" and that "our ability to 'say new things' must rest on our pre-articulate sensing or intuition of the 'thing we need to express' and of the words in our available language which we can most effectively call upon to try to express it" (58-59). According to Falck, we possess also "pre-subjective" intuitive modes of awareness that, given an openness of disposition, "open up continually new horizons within the reality which we inhabit" (59). He believes that our most fundamental apprehensions come through feeling rather than thought:

> Since the primal appearances which 'come to us' are primitively emotional as well as primitively perceptual . . . it is through our *moods*, which must underlie and surround all our conscious experience and conceptual formulations, that we have our most fundamental apprehensions of the nature of the reality around us. (59)

Falck says that on the "pre-experiential or ontological level, 'mood' carries something of the poet's overtones of 'intimation' or of 'apprehension' . . . and is what Wordsworth refers to and begins to define, when [in "Tintern Abbey"] he speaks of 'that blessed mood / In which the burthen of the mystery / . . . / Is lightened out' and 'We see into the life of things'" (59-60). Falck therefore attributes a special importance to lyric poety which "derives its revelatory power

from the primitive unities of thought and feeling which lie at the very basis of language itself" (60). He calls lyric poetry "the most essential of our linguistic modes of apprehension of reality" (60).

Susanne K. Langer in Philosophy in a New Key describes a cycle in which new ideas first come in bewildering metaphors which over time become rationalized by discursive language until science eventually replaces myth. Though she admits that "bare denotative language" is "a most excellent instrument of exact reason," Langer says literal language is "a stiff and conventional medium, unadapted to the expression of genuinely new ideas." Genuinely new ideas must "break in upon the mind through some great and bewildering metaphor." She describes myth as "the indispensable forerunner of metaphysics." Ideas presented fantastically in myth and metaphor become "real intellectual property only when discursive language rises to their expression":

> . . . metaphysics is the literal formulation of basic abstraction, on which our comprehension of sober facts is based. All detail of knowledge, all exact distinction, measure, and practical manipulation, are possible only on a basis of truly abstract concepts, and a framework of such concepts constitutes a philosophy of nature, literal, denotative, and systematic. Only language has the power to effect such an analysis of experience, such a rationalization of knowledge. But it is only where experience is already presented--through some other formative medium, some vehicle of apprehension and memory --that the canons of literal thought have any application. *We must have ideas before we can make literal analyses of them, and really new ideas have their own modes of appearance in the unpredictable creative mind.* (173; emphasis added)

Langer says that when attention turns to the literal or factual values of myth, discursive thinking replaces the poetic, and the scientific world view become ascendent over the mythical. There ensues "the silly conflict of religion and science, in which science must triumph, not because what it says about religion is just, but because religion rests on a young and provisional form of thought, to which philosophy of nature--proudly called 'science' or 'knowledge'--must succeed if thinking is to go on" (173). That, however, is not the end of things. Once the original vision expressed in "great and bewildering metaphor" is "totally rationalized, the ideas exploited and exhausted," the stage is set for the appearance of a new vision, a new mythology.

Describing a process of meaning acquisition very similar to Langer's, Falck recognizes "an uncloseable gap between our sense of reality and the systems of concepts which we rely on to express this sense" (47). "The feeling of approximating to truth--to the disclosure or revelation of how things really are--is a manifestation of the fundamental vital process of meaning-creation, and is a necessary component of every act of language-using where we feel that something has successfully been expressed" (47). Like Langer, Falck perceives different kinds of knowing, one analytic, the other intuitive and creative: "Logic . . . deals with linguistic meanings which we have already acquired; meanwhile, in its actual use within the historical world, language deploys an 'edge' or an intutive 'reaching beyond the confines of experience,' which logic is by definition

unable to 'get quite on level terms with'" (47-48). Falck quotes Nietzsche who said in Twilight of the Idols, "'whatever we have words for, we have already got beyond'" (qtd. in Falck 48). "[I]ndividual creative speech-acts--or writing-acts--which take us a step beyond the various meanings which we have up to that moment possessed" make possible the process of building up the meanings which constitute our language-system (48). Falck says that "reality is ontologically revealed to us in our most ordinary experience"; he claims that "there is a kind of 'imagination' at work in our most ordinary perception which is continuous with, and not self-declaringly distinguishable from the kind of imagination which is at work in our more innovative or 'creative' perceptions of form or significance" (67).[1]

Jacques Maritain also argues for a preconscious life of the mind. As mentioned in the Introduction, Maritain defines poetry as "not the particular art which consists in writing verses, but a process more general and primary: that intercommunication between the inner being of things and the inner being of the human Self which is a kind of divination" (Creative Intuition 3). Maritain says that the intellect or reason plays an essential part in poetry, but that "poetry has its source in the preconceptual life of the intellect" (4). According to Maritain, reason or intellect is not merely logical reason: "it involves an exceedingly more profound--and more obscure--life, which is revealed to us in proportion as we endeavor to penetrate the recesses of poetic activity . . . " (4). Reason is not limited to the

conceptual, logical, and discursive: " . . . reason . . . does not only articulate, connect, and infer, it also *sees*; and reason's intuitive grasping, *intuitus rationis*, is the primary act and function of that one and single power which is called intellect or reason" (55). Maritain posits "a quite particular intellectual process, without parallel in logical reason" at the the root of the creative process. According to Maritain, poetic knowledge is acquired through subjectivity:

> An obscure knowledge through inclination--born in the preconscious of the spirit--in which the world is known *in and through subjectivity*, grasped both together and inseparably by means of an emotion become intentional and intuitive. Such a knowledge is utterly different from what we ordinarily call knowledge, it is more experience than knowledge. It is neither conceptual nor conceptualizable; it is ineffable in itself, expressible only in signs and images and, finally, only in a work made. But precisely because it is not abstactive nor rational, it has no intelligible boundaries, and expands, as it were, to the infinite. (Creative Intuition 141)

Declaring the subject matter of poetry to be "the mutual entanglement of Nature and man . . . the coming together of the World and the Self," Maritain defines *the Self* as "the singularity and the infinite internal depths of this flesh-and-blood and spiritual existent, the artist" and calls "the secretive depths and the implacable advance of that infinite host of beings, aspects, events, physical and moral tangles of horror and beauty--of that world, that undecipherable Other--with which Man the artist is faced" simply

"the things of the world"--using as he says "the poorest and tritest word of the human language," *Things* (9). Echoing Buber's precept that the *I* is made in relationship with the *You*, Maritain explains how the Self is revealed in things and things are revealed through the Self:

> . . . when art only intent on Things succeeds in revealing Things and their hidden meanings, it does also reveal obscurely, despite itself, the creative subjectivity of the artist. While endeavoring to catch and manifest what matters most in Things and the secret significance on which they live, the poetic perception which animates art does involve at the same time a disclosure and manifestation, unitentional as it may be, of the human Self. On the other hand, when art primarily intent on the artist's Self succeeds in revealing creative subjectivity, it does also reveal obscurely Things and their hidden aspects and meanings . . . . While endeavoring to disclose and manifest the artist's Self, the poetic perception which animates art catches and manifests at the same time what matters most in Things, the transapparent reality and secret significance on which they live. (Creative Intuition 29)

Maritain says that *the ordinary visibility of Things "conceals* but can, by virtue of man's spiritual power, reveal the ocean of being" (29: emphasis added).

William Heyen believes that all literature is essentially moral but says that "the dilemma of the modern condition is a feeling of positivistic helplessness in trying to defend traditional virtues . . . once we have lost our capacity for figural thought, once we realize we are not sponsored . . . " ("On Richard Wilbur" 629). Falck sees an

advantage to the loss of mythic absolutes and looks to literature to supply us with the help we need to live our lives:

> The great absolute myths--of God, of the center, of eternity--may perhaps do us no great spiritual harm in so far as they are ways of focusing our idealism; but in the modern world they are unlikely to do us any great spiritual good either, since they encourage us towards intolerance in our ideas or extremism in our behavior, and can give us little guidance in the great middle ground of action and commitment within which we live our actual reflective lives. The help that we need in this middle ground will be available to us above all from the fictions of literature--from those fictions which we feel to be idealistically credible or real, rather than from those which our better judgement enables us to see to be superficial, sentimental, frivolous or fantastic. (143)

That literature which we perceive as "idealistically credible" becomes then a continuing book of revelation. Falck says that a literary fiction or a poem is effective because it "gives us an immediate presence or presentation of ontological meaning" and because " . . . literature inscribes reality, and is a concentrated or intensified expression of life as it occurs at the distinctively human level" (122-123).

Asked how much the reader must assent to the ideas in a poem, Wilbur replied, "What you want in poetry is not rightness of wrongness of belief, but adequacy of attitude, a sufficient comprehensiveness and richness of attitude" (qtd. in Frank and Mitchell 35). Wilbur says what is wanted in poetry in regard to ideas is "not convincing argumentation, or the attractive presentation of ideas in which you already believe, but a demonstration of how

the world would look, how you would feel, if you dwelt in the presence of a certain idea" (35). Noting that it is not necessary to embrace Catholic theology to appreciate the opportunity Dante affords the reader to see and think and feel as a medieval Catholic, Wilbur says that "[t]he issue of reading the poem is not conversion, but enrichment of experience, a stretching of one's sense of the possibilities of the world" (35).

When the imagination acts as a moral agent, art does not become didactic or prescriptive--for it to do so would confine truth and goodness to the limited understandings of the present moment and assume that morality could not continually evolve to higher levels. Falck says that what makes a story or a piece of literature significant is that

> . . . it gives us insights into, or that it reveals or discloses, something of importance about what human life, or therefore reality as it is humanly experienced, is essentially like. This is not something which it makes statements about or tells us. What a poem or story says or tells us (if it says or tells us anything) is only the means by which it shows us something. What it shows us is something which we can recognize only through the sense of a certain rightness (the sense of a certain fidelity to the essential nature of human life or reality) which it gives us as we experience it. (Falck 108)

The essential function of literature, according to Falck, is "to show us how things are --not by describing them in their actuality, but by revealing them in their essential forms and their essential rhythms" (33).[2]

Falck, Langer, and Maritain--each of whom posits a pre-rational or pre-linguistic apprehension of meaning--suggest how language and myth participate in a process of learning whereby what is *felt* becomes what is *known*--consciously, i. e., in words. The intuition of goodness, truth, beauty may be translated into poetry or literature, transmitting the new apprehension in a sharable form that allows the reader to participate in the reenactment and enhancement of the artist's discovery. Gradually, the verbally-approximated new knowledge becomes generally available, but no such discovery is ever a complete or completely understood revelation because words can only approximate the ineffable. Each discovery both advances the awareness of truth, goodness, and beauty but also intimates, through what Marcel calls "fructifying obscurity," more to be discovered and tantalizingly invites pursuit.

Michelson declares that in the late twentieth century, the mind of the poet has more work to do:

> It must be aware of an endlessly expanded universe, of new conceptions of time, new uncertainties about human consequence; it must be aware of a cultural past and of the limits of culture as a source of strength; above all it must be aware of awareness, of the delusions and stubborn mysteries of dreaming and knowing. (60)

Zajonc in "Light and Cognition" says that "[o]n nearly every front we are being called on to re-imagine the world we inhabit"; in order to create the necessary capacities for understanding our future, "we

must dwell precisely in the tensions, the paradoxes, the annoying anomalies of our time." He says "[o]nly thus will we develop the faculties suited to understand the nature of light and . . . see the way through our perilous times" ("Light and Cognition" 126). Rolston says that "[n]ature thrusts at least one kind of its creatures into responsibility, and this call to morality refuses to dissolve before the reductions of science" (244).

For both Wilbur and Eiseley, the imagination is a moral agent. Their writing becomes a means of discovery, of pushing off the verge of the known into the mystery of the yet-to-be-known. They make vivid the things of the world so that they can be seen and honored in the fullness of their being. They reveal the complexity and ambiguity of knowing. Through imagination, they discover unities that bind people, animals, plants, places, memories, events, natural law into an interdependent web of existence. They confront the human potential for great good and appalling evil. After looking at Eiseley and Wilbur's individual concepts of imagination and the function of art, I will examine in detail Wilbur's "The Fourth of July" and Eiseley's "The Innocent Fox" to illustrate how their symbols for the unifying imagination bring into coherence what would seem disparate and unlikely material. I will also examine Wilbur's poem "On the Marginal Way" and Eiseley's essay "The Star Thrower" to illustrate how these pieces compell attention to difficult problems of good and evil and offer a vision of the good without prescriptive answers to persistent concerns.

Eiseley: An Endurable Future

Speculating on the emergence of language and writing, Eiseley remembers episodes from his own experience which suggested to him the human capacity to make an "alphabet of forms." While traveling alone on a solitary stretch of coast, Eiseley began to see "little distorted faces" begin to peer up meaningfully at him "from the oddly fractured shells on the beach." On another occasion, crossing a plain at night on foot, Eiseley saw the clouds in moonlight "begin to build into archaic, voiceless pictures," and he became convinced "that the reading of such pictures has long preceded what men of today call language." The capacity to see a face in shell or a pointing finger in a cloud has, Eiseley believes, changed man--"both magnified and contracted his person in a way verging on the uncanny": "There existed in the growing cortex of man, in its endless ramifications and prolonged growth, a place where, paradoxically, time both flowed and lingered, where mental pictures multiplied and transposed themselves" (IP 141).

Eiseley says that it is the "venerable, word-loving trait in man . . . [that] enables him to transmit his eternal hunger--his yearning for the country of the unchanging autumn light. Words are man's domain, from his beginning to his fall" (IP125). Taking man out of the strictly natural world, language became "the cradle of the human universe":

> Objects and men are no longer completely within the world we call natural--they are subject to the transpositions which the brain can evoke or project. The past can be remembered and caused to haunt the present. Gods may murmur in the trees, or ideas of cosmic proportions can twine a web of sustaining mathematics around the cosmos. (IP 142).

The power of language is in "displacement," the linguistic term which describes "the ability to talk about what is absent, to make use of the imaginary to control the real" (IP 145). Displacement allows human beings to manipulate time and ideas and objects within the mind and even to make in thought a potential reality which we can then impose on the real world. Social structures, traditions, and even tools exist in the mind before they exist in reality. Eiseley says the corollary of displacement is the ability of language to receive "constant increments and modifications" (IP145). The easy ingestion of the new within structured yet amazingly flexible language "allows us a distant glimpse of the endlessly streaming shadows that make up the living brain" (IP 145).

Yet, for all its value, for all it makes possible, language is by its nature limiting and "creates for man an invisible prison":

> Language implies boundaries. A word spoken creates a dog, a rabbit, a man. It fixes their nature before our eyes; henceforth their shapes are, in a sense, our own creation. They are no longer part of the unnamed shifting architecture of the universe. They have been transfixed as if by sorcery, frozen into a concept, a word. Powerful though the spell of human

> language has proven itself to be, it has laid boundaries upon the cosmos. (IP 31)

Through the spell of language, man transforms the emerging present into words, creating "an unnatural world of his own"--the world of human culture. Eiseley says the inadequacy of this language universe transformed into "a cosmic prison house" becomes quickly apparent. This second world of language and a shared mental culture comes with a price:

> In the attempt to understand his universe, man has to give away a part of himself which can never be regained--the certainty of the animal that what it senses is actually there in the shape the eye beholds. By contrast, man finds himself in Plato's cave of illusion. He has acquired an interest in the whole of the natural world at the expense of being ejected from it and returning, all to frequently, as an angry despoiler. (IP 143).

At considerable cost, the human imagination has acquired incredible power. Eiseley says that "[t]he mind that once visualized animals on a cave wall is now engaged in a vast ramification of itself through time and space. Man has broken through the boundaries that control all other life" (UU 53). Like the orb spider, we lie at the heart of the web we have spun but the human web extends "through the starry reaches of sidereal space as well as backward into the dark realm of pre-history. It is a web no creature of earth has ever spun before. . . . Knowledge has given [us] memory of the earth's history beyond the time of [human] emergence" (UU 53-54). We

touch with our minds worlds we can never see in the flesh. Yet, Eiseley says, it no longer enough simply to see into the past or to the ends of the universe. We are also a part of the future which we possess a power to shape. Unfortunately, we have discovered that wisdom does not necessarily come with knowledge and that "learning is endless and . . . nowhere does it lead us behind the existent world. It may reduce the prejudices of ignorance, set our bones, build our cities. In itself, it will never make us ethical men" (FOT 160).

In The Invisible Pyramid Eiseley writes that "part of human destiny . . . is not fixed irrevocably but is subject to the flying shuttles of chance and will" (IP 55). We are evolutionary creatures still in the process of being made: "[S]omething is still undetermined in the human psyche" (IP 56). Out of the dark forests of evolution, human beings have brought "a new unprophesiable world--a latent, lurking universe within our heads" (IP 18). Eiseley says that the evolving brain has created "a superorganic structure" which has enabled man to evade organic specialization and "mount, with wings spun in the brain, the heights of air": "Because of speech, drawn from an infinitesimal spark along a nerve end, the vague, ill-defined surroundings of the animal world [have been] transformed, named, and categorized" (IP 19-20). About human beings lingers a superorganic "penumbral rainbow . . . that cloud of ideas, visions, institutions which hover about, indeed constitute human society, but which can be dissected from no single brain" (21). Among human beings, cultural evolution has superseded physical evolution as the

primary shaping force; evolution continues and accelerates as culture.

Carlisle describes what George Gaylord Simpson in The Meaning of Evolution calls "the new evolution." This new evolution has evolved out of and depends to an extent on organic evolution but "it is peculiar to man and depends largely on his capacities of intelligence, flexibility, individualization, and socialization" ("Heretical Science" 370). Society and culture as well as genetics influence the course of human evolution. Heredity is "no longer simply organic, it has become linguistic or mental--social and cultural. With man's great unique capacities, evolution has become 'subject to conscious control'" (370). Carlisle suggests that this new evolution will require a new biology that blurs the distinctions between science and other disciplines, including both the systematic and analytic and the personal and contemplative (374). James Schwartz in "Loren Eiseley: The Scientist as Literary Artist" believes that "our new evolutionary course into the future will be dictated by spiritual rather than physical dynamics" (862-863) and the learning of a "wise sorrow" (867).

The imagination is a moral burden because we are all creators, whether we like it or not. We live in what Eiseley calls "an eternal dangerous present" (FOT 161), in a creative universe where life is never fixed and stable, a universe in which we make choices that construct the "past" out of which the future will be spun. Even what is forgotten is remembered: " . . . the shadow fingers of lost ideas

reach forward into time to affect our world view, and with it, our future destinies and happiness" (ST 252). The future is "neither ahead nor behind, on one side or another. Nor is it dark or light. It is contained within ourselves; it is drawn from ourselves; its evil and its good are perpetually within us" (NC 73). And "[t]he future's gestation is now. It is made of stuff immediate and inescapable--ourselves" (NC 74). Out of the stuff of ourselves will come, if it comes, an "endurable future." Eiseley says that such an endurable future cannot be solely a product of outward knowledge or the experimental method: It will be born of compassion, of "inward seeing" (NC 74). Eiseley believed that "all responsible decisions are acts of compassion and disinterest; they exist within time and history but they are also outside of it, unique and individual and, because individual, spiritually free" (ST 264). Whether we choose to moral agents or not "every human generation [performs] against the future the acts which justify creation or annul it" (ST 266). Freed from the oppression and security of instinct, we live in a world of imagination and uncertainty--as Eiseley puts it, we fell "out of the secure world of instinct into a place of wonder" (ST 221). Because our actions are less compelled and more chosen, we have greater responsibility for our individual participation in the ongoing cosmogenesis.

In Darwin's Century, Eiseley writes that if evolution has taught us anything it has taught us "that life is infinitely creative" or, as Henri Bergson remarked, "'the role of life is to insert some indetermination into matter'" (qtd. in DC 247). That creative

indetermination has given man "an advanced brain capable of multiple choices . . . . He is a 'reservoir of indetermination.'" Protean and elusive, capable of great good and appalling evil, man, for Eiseley, "represents the genuine triumph of volition, life's near evasion of the forces that have molded it" (DC 350). Imagination is one of the manifestations of the ever-emergent novelty inherent in nature. Definition--whether cell walls, rock faces, or human knowledge--merely creates a verge, the edges or boundaries where change will occur. Imagination brings the imaginer to the verge where the known melts into the unknown. Eiseley described Thoreau as "a dweller along the edge of the known, a place where the new begins" (UU 137). Yet, Eiseley found no happy assurance in human imaginative power: "We are more dangerous than we seem and more potent in our ability to materialize the unexpected that is drawn from our minds" (UU 46).

The imagination at its worst can become an instrument of darkness. Writing of Shakespeare's Macbeth, "this old murderous tale of the scentific twilight," Eiseley begins his essay "Instruments of Darkness" with a perceptive analysis of the scene in which Macbeth undergoes a "malevolent change in character." The title of Eiseley's essay comes from Banquo's lines warning that the "Instruments of Darkness" win us to our harms with honest trifles but then betray us "[i]n deepest consequence." Eiseley sees Macbeth's witches as "an exteriorized portion of ourselves":

> They are projections from our own psyche, smoking wisps of mental vapor that proclaim our subconscious intentions and bolster them with Delphic utterances--half-truths which we consciously accept, and which then take power over us. Under the spell of such oracles we create, not a necessary or real future, but a counterfeit drawn from within ourselves, which we then superimpose, through purely human power, upon reality. (NC 48)

The danger for human beings lies in what we choose to believe about ourselves. We are what we imagine; we become the myth we create for ourselves: " . . . Macbeth's demons, by prophecy, worked in him a transformation of character which then created inevitable tragedy. Until the appearance of the witches on the heath gave it shape, that tragedy existed only as a latent possibility in Macbeth's subconscious" (NC 49). Shakespeare wrote that "he which is was wished until he were"; Eiseley says that "[t]he terror that confronts our age is our own conception of ourselves" (NC 55). Shakespeare's message "that what we wish will come," Eiseley says is "the deadliest message man will ever encounter in all literature" because it thrusts upon us the inescapable choices whereby we will make our future (NC 55).

Eiseley finds in the ruins of every civilization "the marks of men trying to express themselves, to leave an impression upon the earth" (NC 85). Because we in modern times have learned more of the past than any preceding era--" . . . .turned more stones, listened to more buried voices . . . "--Eiseley believes that we should possess the "kind of pity that comes with time" and be safe from the savage

brutality of "the man who is not aware he is a shadow" (NC 85). Of all the fallibilities of the human condition, Eiseley says the most grievous wound we have suffered in the process of acquiring a thinking brain is a "shadow of madness," "an insatiable thirst for cruelty" (NC 85).

At its best, Eiseley sees the imagination as the agent of human freedom and the precursor of all new learning: "it is this impossible fertile world of our imagination which gave birth to liberty in the midst of oppresssion, and which persists in seeking until what is sought is seen" (ST 269). Eiseley says that it is the artist who serves to waken the individual from the dream of self:

> The symbols used by the great artist are a key releasing our humanity from the solitary tower of the self. . . . the artist plays an enormous role in this act of self creation. It is he who touches the hidden strings of pity, who searches our hearts, who makes us sensitive to beauty, who asks questions about fate and destiny. (ST 274)

Eiseley believes that through "artistic imagination" we can discover "those humane insights and understandings which alone can lighten our burden and enable us to shape ourselves . . . . into the forms which great art has anticipated" (ST 279).

Eiseley likens the poet to the watchful and elusive crab: "He is born wary and is frequently in retreat because he is a protector of the human spirit" (IP 124). He fancies poets "lurking about the edge of all our activities, testing with a probing eye, if not claw, our

thoughts as well as our machines" (124). Remembering Emerson's stubborn assertion that "[t]he soul is no traveller," Eiseley says that the great writer is "peculiarly a product of his native environment" who is able to select "from his surroundings a fiery train of dissimilar memory particles--'unlike things' which are woven at last into the likeness of truth" (IP 124-125). In another metaphor, Eiseley calls poets and writers the "spore bearers of thought" and says that they found "the keys to what originally appeared to be the impregnable prison of selfhood" (IP 125). Though according to Emerson the poet has no need to travel in space beyond his native land, Eiseley sees the poet as a time-traveler with "a preternatural sensitivity to the backward and forward reaches of time" and an ability to see into things in ways that exceed the capacity of science and its instruments: "[Poets] probe into life as far as, if not farther than, the molecular biologist does, because they touch life itself and not its particulate stucture" (IP 125).

Eiseley considered looking to be the business of art and he considered it "the real business of the artist to seek for man's salvation, and by understanding his ingredients to make him less of an outlaw to himself, civilize him, in fact, back into that titanic otherness, that star's substance from which he had risen" (ST 237-238). In the question, "How should we see?," Eiseley heard the terror of the modern age (ST 249). Like Wilbur, Eiseley believed that it is in the natural world that we see ourselves: "A flower might open a

man's mind, a box tortoise endow him with mercy, a mist enable him to see his own shifting and uncertain configuration" (ST 238).

> We see, as artists, as scientists, each in his own way, through the inexorable lens we cannot alter. In a nature which Thoreau recognized as unfixed and lawless anything might happen. The artist's endeavor is to make it happen--the unlawful, the oncoming world, whether endurable or mad, but shaped, shaped always by the harsh angles of truth, the truth as glimpsed through the terrible crystal of genius. This is the one sure rule of that other civilization [nature] which we have come to know is greater than our own. (ST 250)

The artist must serve as midwife, bringing into being "the unlawful, the oncoming world."

Eiseley believed that human seeing can be numbed into blindness, however, by too much daylight and that really intense vision would come with lightning flashes briefly, dramatically illuminating the dark and demanding our attention:

> How much more we would see . . . if the world were lit solely by lightning flashes from the Elizabethan stage. What miraculous insights and perceptions might our senses be trained to receive amidst the alternate crash of thunder and the hurtling force that give a peculiar and momentary shine to an old tree on a wet night. Our world might be transformed interiorly from its staid arrangement of laws and uniformity of expression into one where the unexpected and blinding illumination constituted our faith in reality. (NC 136)

In the seeing that comes with a flash of lightning we have a chance to discover the "wild and unpredictable" that lurks behind the world's ordinarily sober manifestations.

Eiseley believed that such flashes of "the light of universes beyond our ken" occur only in rare individuals of genius but the vision caught in the flash can be communicated to the rest of us. The momentary illumination in an individual brain can, as Thoreau said, change our way of seeing--"'from seeing things as men describe them, to seeing them as men cannot describe them'" (qtd. in NC 137). Without the absolute unexpectedness, the lightning strokes of the great artists, we would lose much:

> . . . [we] would never have known the fairyland of The Tempest, the midnight world of Dostoevsky, or the blackbirds on the yellow harvest fields of Van Gogh. We would have seen blackbirds and endured the depravity of our own hearts, but it would not be the same landscape that the act of genius transformed. The world without Shakespeare's insights is a lesser world, our griefs shut more inarticulately in upon themselves. We grow mute at the thought--just as an element seems to disappear from sunlight without Van Gogh.
>
> (NC 137-138)

Eiseley compares these lightning strokes of genius to the "particle episodes" of subatomic physics in which the world we call ordinary is created by the "accident and impact" of whirling electrons. Because the elusive particle may "play a role in biological change and diversity . . . the mysterious world of particles may influence events within the realm of the living" (NC 138). The artist, living in a world

of "inifinite variability" and individual act, shares the creative potential of the universe. Creations of the artist are "acts without precedent, a kind of disobedience of normality, unprophesiable by science, unduplicable by other individuals on demand" (NC 138). Eiseley says such events are part of "unpredictable newness" which makes the universe never fully knowable and the future a mystery.

The rigors of the scientific method do not allow questions of fate and destiny, compassion and beauty, to be pursued directly, but science does share some methodology with art. Eiseley believed science as much as art needs metaphoric language: "it is only by the hook of the analogy, by the root metaphor . . . that science succeeds in extending its domain" (FOT 20). Science uses analogy and symbol to transfer ideas from one field to another. Successful analogies and symbols "genuinely resemble the figures and enchantments of great literature, whose meanings similarly can never be totally grasped because of their endless power to ramify in the individual mind" (ST 274). According to Eiseley, Bacon and Shakespeare, contemporaries in time, shared "a recognition of the creativeness which adds to nature, and which emerges from nature as 'an art which nature makes'" (ST 278).

Eiseley identifies three natural phenomena which have become for science symbols of vast significance. Evolution, the expanding universe, and the unconscious have themselves become figurative symbols in the human imagination just like the archetypal symbols of art. Sir Charles Lyell saw in evolutionary signs like the fossilized

prints of raindrops "the persistence of the world's natural forces through the incredible, mysterious aeons of geologic time" and "a vast hitherto unglimpsed order" (ST 274). The prints of fossil raindrops were evidence to Lyell that rain fell in the remote past as it does today; imaginatively he could see in the fossilized rain-prints the great stretching back of the natural order in its process of slow, incessant change. Eiseley says that, likewise today, "the eyes of ancient trilobite tells us similarly of the unchanging laws of light," and a scratched pebble whispers of far-reaching ice ages melted into the past (ST 275). Eiseley believes that "[s]uch images drawn from the world of science are every bit as powerful as literary symbolism and equally demanding upon the individual imagination of the scientist who would fully grasp the extension of meaning which it involved" (ST 275). Behind "the visible evidence" of these all-embracing concepts (evolution, the expanding universe, and the unconscious) lurks "vast shadows no longer quite of that world which we term natural" (ST 275). "Reality itself has been superseded by a greater reality" or, as Eiseley quotes John Donne, "'The substance of the truth is in the greater images which lie behind" (ST 275).

Although he respected the power of the scientific imagination to open the world to us, Eiseley was not seduced into believing it a panacea for human ills. He counters the "bouyant optimism" of "the empire of science" with the observation that science is human: "It has not prevented war; it has perfected it. It has not abolished cruelty or corruption; it has enabled these abominations to be

practiced on a scale unknown before in human history" (UU 43). Even when acting benignly, science solves problems but "[s]olutions to problems create problems," and the solutions to those problems create others so that the progression is algebraic. This "evolution of contigency" in human hands "flickers unseen behind every whirl of our machines, every pronouncement of political policy" (UU 44). Eiseley saw that science itself could not wrest a utopia from nature; given the multiform nature of humanity as a whole and our individual capacities for both good and evil:

> . . . science is not enough for man. It is not the road back to the waiting Garden, for that road lies through the heart of man. Only when man has recognized this fact will science become what it was for Bacon, something to speak of as 'touching upon Hope.' Only then will man be truly human. (FOT 149).

Eiseley recognized the danger of the human imagination unanticipated by Bacon four hundred years earlier. Bacon had believed that man could draw a "second world" of his own making from the world of nature and confidently expected that such a world would be utopian--"'ourselves made perfect'" (NC 132). Eiseley says we have learned to our sorrow that more than one world can be drawn out of nature (NC 134). The worlds we draw from the maelstrom of the protean, malleable natural world by the effort of our own imaginations are human and share in human imperfectibility. These second worlds "do not always serve the individual imprisoned within the substance of things" (NC 134). At

the end of The Firmament of Time, Eiseley describes the man with two faces struggling to control the horses of his imagination, the power his mind has harnessed. The figure with face half demon, half angel symbolizes the human predicament: torn by conflicting drives within our own natures, we struggle to master the forces our minds have flogged into action. Eiseley came to believe that the hope for the future lies in contemplation and contrition. The "endurable future" will not come solely through "outward knowledge" or the experimental method; an endurable future must be "born of compassion . . . born of introspection" (NC 85). "It is one thing successfully to plan a moon voyage; it is quite another to solve the moral problems of a distraught, unenlightened, and confused humanity" (107).

Eiseley describes the giant reflecting eye of the Mount Palomar telescope as one of the sequelae of evolution: "the water and the salt and the vapors of the sun have built it; things that squirmed in the tide silts have devised it" (IJ 45). Although "[l]ight year beyond light year, deep beyond deep, the mind may rove by means of it, hanging above the bottomless and surveying impartially the state of matter in the white dwarf suns," Eiseley concludes that the giant telescope is itself not the greatest extension of vision. Rather, "the most enormous extension of vision of which life is capable" is "the projection of itself into other lives." And this capacity is "the lonely magnificent power of humanity. It is, far more than any spatial adventure, the supreme epitome of reaching out" (IJ 46).

A moment of vision, of seeing beyond the self into the needs and claims of other life comes for Eiseley in "Obituary of a Bone Hunter." In that essay, Eiseley recounts three episodes in which he says he gave up opportunities for a possibly significant discovery in human paleontology. In the second instance, he chose the potential for life in an owl's egg over the bones of the past. To have conducted explorations for the remains of early man in a cave that showed promising signs of prehistoric habitation, Eiseley would have to have destroyed a nest containing the single egg of an endangered species of owl. He says he decided to forgo the skull that might make him famous for the sake of an egg that, undisturbed, would become an owl. He affirms the rightness of his choice: "I had had charge of [the egg] in the universe's sight for a single hour, and I had done well by life" (NC 188). In The Immense Journey Eiseley said that "the need is not really for more brains, the need is now for a gentler, more tolerant people than those who won for us against the ice, the tiger, and the bear" (IJ 140).

Both Wilbur and Eiseley speak of the human obligation to be alive to the world. As an anthropologist, Eiseley had a sense of his obligation to help human beings discover their past so that "we can learn our limitations and suffer life with compassion." Eiseley also believed in the importance of an individual search that adds to the shared community of knowledge and reverence. He says each, like Thoreau, must possess his own wilderness and "consider what marvels are to be observed there": "On the world island we are all

castaways, so that what is seen by one may be dark or obscure to another" (IJ 13-14).

In All the Strange Hours, Eiseley compares the writer's mind to an artist's loft. Unseen within the writer's brain hang pictures, some askew, "pictures with outlines barely chalked in, pictures torn, pictures the artist has striven unsuccessfully to erase, pictures that only emerge and glow in a certain light." Memories of a lifetime hang "teleported, stolen . . . out of time. They represent no longer the sequential flow of ordinary memory. They can be pulled about on easels, examined within the mind itself" (ASH 151). The act of recall is not total but is "the use of things extracted from their context in such a way that have become the unique possession of a single life." The person remembering cannot--as Wilbur's mind-reader could not--control the flow of memories; but he does have some control over his response. Isolated memories can become endowed with "symbolic life": "He cannot obliterate them. He can only drag them about, magnify or reduce them as his artistic sense dictates, or juxtapose them in order to enhance a pattern. One thing he cannot do. He cannot destroy what will not be destroyed; he cannot determine in advance what will enter his mind" (ASH 151).

In "The Last Neanderthal," the artist's loft becomes a junkman's wagon. The essay is made of an assortment of unexpected, dissimilar fragments gathered together in the cart of one man's mind. Laden with concerns about time, memory, death, and

the urgency of life expressed in a miscellany of symbols, Eiseley's story both states and demonstrates his theory of memory and creation. The central image about which the three-part essay, ostensibly set in tropical Curacao, coalesces is the memory of a "spot of time" which occurred forty-five years earlier in Nebraska. As a boy of sixteen, Eiseley had, with adolescent urgency, just discovered time and his own transience: "It is all going, I thought . . . . No one can hold us. Each and all, we are riding into the dark. Even living, we cannot remember half the events of our own days" (UU 217). Struck by this sudden realization, Eiseley had willed himself to save that very passing moment. By chance, a junk dealer was just going by at the intersection between R and Fourteenth Streets. Eiseley ordered himself, " . . . now, save him, immortalize the unseizable moment. The junkman is the symbol of all that is going or is gone. He is passing the intersection into nothingness. Say to the mind, 'Hold him, do not forget'" (217).

> Before me passed a broken old horse plodding before a cart laden with bags of cast-off clothing, discarded furniture, and abandoned metal. The horse's harness was a makeshift combination of straps mended with rope. The bearded man perched high in the driver's seat looked as though he had been compounded from the assorted junk heap in the wagon bed.
> (UU 216)

What burns most vividly in Eiseley's memory nearly a half a century later on a beach in the Netherland Antilles is a street sign and a year--"a year that scurried into shape with the flickering alacrity of

the lizards" which rustled in some cardboard boxes beside a fence: "'R Street,' they spelled, and the year was 1923" (UU 216). The human brain was able to hold the scene in process. The junkman on R Street would stay in Eiseley's memory until his mind crumbled.

Fiery images and allusions to burning appear throughout "The Last Neanderthal," first as smolderings and finally as flames and smoke. The junkman's wagon becomes an emblem for the story itself--a collection of disparate pieces from various times and places drawn together and carried forward by the primal energy of memory and imagination. Among the first images drawn out of the shambles of the anthropologist's memories is a collection of bones. On a littered beach where "only a student of desolation would find cause to linger," Eiseley finds washed up among the other debris the nearly skeletal remains of a young dog--a fisherman's pet which had died and been buried at sea. Despite the smell of death, Eiseley feels it "a sacrilege" to turn away without due acknowledgment because it occurs to him that "this particular tattered garment had once lived. Scenes on the living sea that would never in all eternity recur again had streamed through the sockets of those vanished eyes" (UU 215).[3]

As he leaves the dog's remains to be washed out to sea or "to bleach starkly upon coral and conch shells, mingling the little lime of his bones with all else that had once stood upright on these shores," Eiseley becomes aware of "a tracery of lizard tails amidst the sand and the semidesert shrubbery." The numerous, swift lizards "had a tangential way of darting off to the side like inconsequential

thoughts that never paused long enough to be fully apprehended" (UU 215-216). Taking shelter from the blazing equatorial sun under a manzanillo tree fruited with poison apples, Eiseley sees "the darting lizard points" begin to run together into the pattern of a memory, the junkman's cart from forty-five years before. He says the apples or the lizards may have made the connection or "it may have been the tropic sun, lending its flames to life with a kind of dreadful indifference as to the result" (UU 216). Of course, there is the connection Eiseley does not mention: He wears the "tattered flesh" of an old man whose bones will soon, like the sailor's dog, return their bit of lime to the earth and whose eye sockets will become hollowed of their unique vision. The "blistering apples" of the manzanillo tree remind him of "an inconsequential wild-plum fall far away in Nebraska." The inedible apples also seem a simpler version "of the mystery hidden in our heads." Like the brain, the apples were "hoarding and dispersing energy while the inanimate universe was running down around us" (UU 218).

Puzzled about how the mind works and wondering if "it would be possible to understand humanity a little better if one could follow along just a step of the evolutionary pathway," Eiseley returns in memory to Nebraska and recalls meeting during a bone-hunting expedition in his youth "the last Neanderthal," a young woman living in an isolated sod hut. The stocky, barefoot girl brought eggs and milk to the digging party. Seen in the shadows and dancing highlights of the campfire, the girl's massive-boned head gave her an

alien appearance. She had a ridge at the orbits along the frontal bone, a feature that had disappeared "particularly in women . . . before the close of the Wurmian ice" (UU 222). The girl had asked a haunting question--"'Do you have a home?'"--that seemed for Eiseley as much a question about a place in time as in Nebraska. He had the feeling of stepping out of time and participating in an encounter between a Neanderthal and the *sapiens* who had eliminated the earlier human species. In that "fragile episode," Eiseley perceived himself experiencing "the endurance in a single mind of two stages of man's climb up the energy ladder that may be both his triumph and his doom" (UU 225). Looking back at human development, he realizes that the "surging tide of power" man now rides was "first conceived in the hearth fires of dead caverns" of the Ice Age: "The cell that had somehow mastered the secret of controlled energy, of surreptitious burning to a purpose . . . finally produced the mind . . . " (UU 226). But the mind that had learned to control the fire at the cave mouth has since learned to rupture the nucleus of the atom, loosing the fire that can "cause substance to vanish and the earth itself to tremble" (UU 226).

In the third section of "The Last Neanderthal," Eiseley considers how life with a "kind of desperate will" resides so powerfully even in a root that will "burst a rock face on a mountain" in its covert struggle with the heat death decreed by the Second Law of Thermodynamics.[4] In man the hoarded energy--"the strange hoarding at the heart of life"--has taken strange forms and, according

to Eiseley, seems to be "driving toward a climax." (UU 229). Bacon believed a "second world" of invention, toleration, and reason could be drawn out of nature "by the sheer power of the human mind" (UU 229), but that power has also shaken our conception of the natural order:

> A mathematical formula traveling weakly along the fibers of the neopallium may serve to wreck the planet. It is a kind of metabolic energy never envisaged by the lichen attacking a rock face or dreamed of in the flickering shadows of a cave fire. Yet from these ancient sources man's hunger has been drawn. Its potential is to be found in the life of the world we call natural, just as its terrifying intricacy is the product of the second visionary world evoked in the brain of man. (UU 230)

Eiseley sees "the energy whose limited planetary store lies at the root of the struggle for existence" pass by way of the human mind into another and terrifying dimension.

After the dog skeleton, the junkman's cart, and the Neanderthal girl, Eiseley offers one more emblem of the struggle between creation and entropy. He reminds the reader that several pages earlier he had briefly mentioned a wild-plum thicket in connection with the manzanillo tree. The poison apples had stirred a youthful memory of visiting the plum thicket in autumn: "All the hoarded juices of summer had fallen with that lush untasted fruit upon the grass" (UU 230-231). The tiny engines of the plum tree had turned sugar and syrup into fruit and seed. Eiseley remembers that the "energy dispersion was so beneficent on that autumn afternoon that earth itself seemed anxious to promote the process against the downward

guttering of the stars." Tasting the fruit, Eiseley was "scooping up some of it into thoughts and dreams" (UU 231).

Long after his Antillean adventure, Eiseley says he returned to the plum thicket. Musing in the drifting smoke of burning fall leaves, Eiseley wonders if in humans fire "is only concealed and grown slyly conscious of its own burning." As in The Immense Journey he had imagined humans as walking sacks of sea water, now he imagines them as contained fire: "What if I am, in some way, only a sophisticated fire that has acquired an ability to regulate its rate of combustion and to hoard its fuel in order to see and walk?" (UU 231). Recognizing that he is old and in need of husbanding his remaining embers, Eiseley wills to release the junkman's horse and drop his carefully hoarded memories "like the blue plums in some gesture of love toward the universe . . ." (UU 232). He concludes that the secret is to travel always in the first world of nature and not in the second world drawn out of the mind--or at least, to know one from the other. Clutching a carved flint, his talisman from the long-ago dig on the escarpment where he met the last Neanderthal, Eiseley follows the smoke of burning leaves but hears behind him a crackling "as though I myself were burning" (UU 233).

What connects all these disparate images is the slow, controlled oxidation in a human brain which makes possible its witness of the perpetual struggle between the creative life force and the inexorable heat death legislated by the Second Law. Eiseley says that "[o]f all the unexpected qualities of an unexpected universe, the sheer

organizing power of animal and plant metabolism is one of the most remarkable," but, like other "everyday marvels," it is mostly invisible to us because we tend to take the existent for granted. Life, unlike fire in a thicket, has learned to burn cunningly and hoard its resources. The "sullen and obstinate burning" of living cells generates the organizing power out of which the human mind makes history. The oxygen-devouring brain burns, evokes, and transposes visions, "whether of lizard tails, alphabets from the sea, or the realms beyond the galaxy" (UU 218).

Often Eiseley opens his essays with what Carrithers calls a "a defined and presumptively shareable sensory complex" (196). In "The Last Neanderthal" the opening sensory image is "the simple observation" that desert rocks can "glow with heat for a time after sundown" (UU 213). Eiseley then draws a parallel to the heat stored in the stone to the creative energy stored in the human brain: "Similar emanations may come from the writer or the scientist. The creative individual is someone upon whom mysterious rays have converged and are again reflected, not necessarily immediately, but in the course of years" (UU 213). In "Man the Firemaker" printed in the posthumous collection The Star Thrower, Eiseley says of man--the discoverer, not the inventor of fire--that his "long adventure with knowledge has, to a very marked degree, been a climb up the heat ladder" and that man himself is "a consuming fire" (ST 45). In an earlier essay in The Unexpected Universe, "The Angry Winter," Eiseley described fire as "the only natural force on the planet that

can both feed and travel" (UU 116). Like an animal, fire must be tended, and like an animal, it can rage out of control. Eiseley says that unlike speech for which we are biologically adapted by "a simple gift from the dark powers behind nature," fire is "our own triumph, our grasp upon invisible chemical power" (UU 115). Fire which "undoubtedly enhanced" our opportunities for brain growth has also, as suggested by "lingering legends," separated us from animals. In "The Last Neanderthal," Eiseley recognizes that thought, the "wispy geometry of dreams and memories," is itself "a kind of slow-burning oxidation carried on in an equally diffuse and mediating web of nerve and sense cells" and thought arising from the particulate brain is even capable of disobeying the precept against natural leaps (UU 213-214). Thought, like fire, changes things: "The same incident may stand as a simple fact to some, an intangible hint of the nature of the universe to others, a useful myth to a savage, or any number of other things. The receptive mind makes all the difference, shadowing or lighting the original object" (UU 214).

Wilbur: " . . . a struggle with something powerfully other"

According to Wilbur, all poets are moved by two urges, but one is usually more predominant. The two impulses to poetry are "the impulse to name the world and the impulse to clarify and embody the self" ("Poetry and Happiness" 102). In an interview with Peter

Stitt, Wilbur said, "It is the thing, and not myself, which I set out to explore." Wilbur describes his own poetic inspiration as "a sudden, confident sense that there is an exploitable and interesting relationship between something perceived out there and something in the way of incipient meaning within [the poet]." What is seen has to be seen freshly in order to provoke the process: "Noting a likeness or resemblance between two things in nature can provide this freshness" as long as it coincides with "a feeling that some kind of idea is implicit within that resemblance" (Stitt, "Interview" 41). Wilbur identifies a "primitive desire" that he considers "radical to poetry"--"the desire to lay claim to as much of the world as possible through uttering the names of things." He believes that catalogues of things make us feel "vicariously alert" and "more alive to things." Wilbur says the cataloging impulse almost always expresses "a longing to possess the whole world, and to praise it, or at least feel it" ("Poetry and Happiness" 93). Description, he calls "an elaborate and enchanted form of naming" (102).

Presuming the "I" speaker of the poem to represent the poet as well as the milk weed plant, Joseph Brodsky finds Richard Wilbur's stylistic and sensual credo in the eight-line poem "A Milkweed" (Brodsky 203):

> Anonymous as cherubs
> Over the crib of God,
> White seeds are floating
> Out of my burst pod.
> What power had I

Before I learned to yield?
Shatter me, great wind:
I shall possess the field.
(Poems 181)

Brodsky is right. In Wilbur's aesthetic there is a willing acquiesence, an unguarded exposure of the imagination to things of this world. In order to seed the field, to send out poems fertile with life, the poet must hazard the dangers of a consciousness open to the fierce, beautiful winds of otherness in the world about him. He cannot like "The Mind Reader" practice "the shrewd habit of concupiscence" which like a visor narrows his regard, protecting his awareness till his "thought / Is a blind lowered almost to the sill" (Poems 110).

But there is another aspect to Wilbur's aesthetic. The milkweed is only one of "Two Voices in a Meadow." The other voice is Wilbur speaking through "A Stone":

As casual as cow-dung
Under the crib of God,
I lie where chance would have me,
Up to the ears in sod.
Why should I move? To move
Befits a light desire.
The sill of Heaven would founder,
Did such as I aspire. (Poems 181)

The companion to Wilbur's aesthetic suppleness and yielding imagination is a firm resistance to etherializing the things of this world, himself among them. He espouses a trueness to self, a trueness to form like that described in his poem "Seed Leaves":

"Something stubborn" within him recognizes that growth only comes with "the doom of taking shape"--accepting the special signature, resigning himself "to being self-defined" (Poems 129). To have "commerce / With the great universe" requires that instead of becoming "vaguely vast," the leaf take on the jagged sawtooth edges of identity, requires that the stone remain in the sod "As casual as cow-dung / Under the crib of God."

Wilbur likes resistance: "I like the world to resist my ordering of it, so that I can feel it is real and that I'm honoring its reality" (qtd. in Hutton 63). In his essay "The Bottles Become New, Too," Wilbur insists that neither the mysterious world nor the formative mind can be denied (219). Poetry and other arts become posssible when the willing imagination both accepts the bashings of reality and asserts its own mastery. Wilbur's description of Cezanne's art is also true of his own:

> In the best paintings of Cezanne you are aware of the tremendous mass, immediacy, and entity of the world, and at the same time of the mastery of the mind which got that into a frame. Every Cezanne is a moment of tension between a formative mind and a reality which that mind insists on recognizing. It is a dynamic balance, a fierce calm like that in Delacroix's fresco at Saint-Sulpice of the struggle between Jacob and the Angel. ("The Bottles Become New, Too" 219).

Wilbur concludes his assessment of Cezanne with the acknowledgment that "Sainte Victoire is more than any painting of it.

But the important thing is to have a relation to the mountain" (219; emphasis added).

In "Regarding Places," an essay written as an introduction for a collection of landscape paintings, Wilbur describes the difficulty a painter had adjusting his art to the desert of New Mexico:

> "At first the dunes, mesas, mountains, and sky had impressed him as vast, empty, and paralyzing, and he had made out only four or five colors. It was a whole half-year before he apprehended great motions in the landscape, and a granular subtlety of color which called, so he judged , for a species of pointillist attack. Observation, the adaptation of his technique, and the discovery of what in himself the scenery might declare had at last made it possible for him to paint.
> ("Regarding Places" 158)

Wilbur says that what he liked in the artist's account of his inventing New Mexico was that it implied "no easy affinity, no facile personalization or imposition of mood, but *a struggle with something powerfully other*" (158; emphasis added). Wilbur asks if one could not "just as well say that the desert, in requiring of the painter a fresh self, had in its own good time imagined *him*?" (158). In one sense the artist remakes the desert, and in another sense the desert remakes the artist. And out of the interaction of the imagination of the perceiver and the reality of otherness comes a work of art that is truly made, not imposed or merely copied. Wilbur defines the artistic achievement of place as creating "a fusion of human and

natural order . . . a peculiar window on the whole" ("Regarding Places" 160).

For Wilbur, every genuine act of creation must begin with a feeling of inadequacy before the reality which exists beyond all constructions of the consciousness. The elements, objects, plants, animals are all "isolable representatives" of that ambient reality ("The Bottles Become New, Too" 218). Wilbur considers the difficulty of the mind's direct apprehension and expression of these objects to be "insuperable," and therefore suggests that every poem ought to begin "by a disorderly retreat to defensible positions." Because of the hopelessness of direct combat, the artist must "resort to the warfare of spells, effigies, and prophecies"; his relationship to reality must be a consciously oblique one ("The Bottles Become New, Too" 220). Though art begins in the humility of the imagination being resisted by reality, the process of struggle affirms the individual imagination as, in fact, one of the aspects of reality. The paintings or poems which result from the conflict are in themselves new realities. When the milkweed pods are broken by the wind, flat, brown seeds tufted with silken feathers possess the field.

Wilbur believes that we discover ourselves through nature and out of nature we make the metaphors and analogies for our discoveries about what is not us. In his poem "Advice to a Prophet," the speaker advises the prophet who would forewarn us of the horrors of nuclear war to speak in terms which we can understand and which will have impact on us:

> Spare us all word of the weapons, their force and range,
> The long numbers that rocket the mind;
> Our slow, unreckoning hearts will be left behind,
> Unable to fear what is too strange.
>
> Nor shall you scare us with talk of the death of the race.
> How shall we dream of this place without us? (182)

What will terrify us into having pity on ourselves will be to "Speak of the world's own change":

> We could believe,
>
> If you told us so, that the white-tailed deer will slip
> Into perfect shade, grown perfectly shy,
> The lark avoid the reaches of our eye,
> The jack-pine lose its knuckled grip
>
> On the cold ledge, and every torrent burn
> As Xanthus[5] once, its gliding trout
> Stunned in a twinkling. (182)

Because we have seen the dreamt cloud crumble and seen the vines blackened by frost, we can believe that the deer and the lark can be lost to our sight, that the tree be felled and the fish killed. "What should we be without / . . . . These things in which we have seen ourselves and spoken" or, as he says in "Icarium Mare," these "Creatures without which vision would be blind?" Without the world of nature, humans would lose their voices and their images:

> Ask us prophet, how we shall call
> Our natures forth when that live tongue is all
> Dispelled, that glass obscured or broken

> In which we have said the rose of our love and clean
> Horse of our courage . . .
> . . . . . .
>
> Ask us, ask us . . .
> . . . . . .
> Whether there shall be lofty or long standing
> When the bronze annals of the oak-tree close. (183)

Losing nature we would lose the analogies and metaphors that make it possible to know and speak of ourselves; humanity would be unmade.[6] The adviser to the prophet does not believe that the human imagination will stretch far enough nor the human ego shrink small enough to encompass the possibility of the nuclear annihilation of mankind. However, the speaker thinks the evidence of the senses and our egos will persuade us to believe that we could destroy the natural world. And the terror of losing the things of this world will perhaps convince us to save them and, thereby, ourselves.[7]

In another poem, Wilbur illustrates his own need of natural objects as the link between himself and a world that otherwise seems faraway and alien. Even though he had been a soldier himself, Wilbur could find no kinship with the Civil War veterans in a photograph until he found something in their natural world to which he could respond. In his poem "Looking into History," the poet is not able to feel a filial relationship with the five soldiers pictures in the "amber atmosphere" of one of Matthew Brady's Civil War photographs because the men stand in unfamiliar, affected postures of another time and "in a land subdued beyond belief." All is strange

until the poet glimpses beyond the tents "a file of trees / Verging a road that struggles up a hill. / They're sycamores." Naming the familiar trees, Wilbur feels the stasis and alienation broken; his imagination is stirred as "[t]he long-abated breeze / Flares in those boughs I know, and hauls the sound / Of guns and a great forest in distress." He has seen himself and spoken in the things of a shared world and can name his fathers and know his cause: "Fathers, I know my cause, and we are bound / Beyond the hill to fight at Wilderness" (Poems 252).

Knowing comes through metaphor, through *seeming* or *likening*. The natural world provides the metaphors whereby we can know ourselves and the world and speak to one another of what we know. Wilbur's poem "Lying" is about the power and the insistence of the imagination on making images, on making the world cohere in metaphor. "Lying" is about lies, truth, and poetry--a way of lying in order to tell the truth. The poem opens on a note of flabby *ennui*; the speaker, a cousin to the Mind-Reader or the monologist of "Walking to Sleep," advises the listening "you" on the harmlessness of casual social untruths--falsehoods that do not have the energy to be called a lie:

> To claim, at a dead party, to have spotted a grackle,
> When in fact you haven't of late, can do no harm.
> Your reputation for saying things of interest
> Will not be marred, if you hasten to other topics,

> Nor will the delicate web of human trust
> Be ruptured by that airy fabrication. (Poems 9)

Assuming facile conversation to be the substrate of the social matrix, the speaker allows a "white lie" to get things going. His assurance that claiming falsely to have spotted a grackle will not harm "[y]our reputation for saying things of interest" is ironical. Since the common grackle is quite common year-round in most areas of the Eastern United States, the subject does not seem likely to a scintillating topic of conversation--but then perhaps the person spoken to may have such a reputation for *not* "saying things of interest" that his reputation will indeed not be marred by such an inanity. The adjective of "airy fabrication" may euphemistically mean gaseous. The advisor warns his auditor that a tear in the "delicate web of human trust" may come though if too much energy is expended on inconsequence:

> Late, however, talking with toxic zest
> Of golf, or taxes, or the rest of it
> Where the beaked ladle plies the chuckling ice,
> You may enjoy a chill of severance, hearing
> Above your head the shrug of unreal wings. (Poems 9)

The party-goer seems to have bored even the fictitious grackles: He paradoxically *enjoys* "the *chill* of severance" while "the *beaked* ladle plies the *chuckling ice*," and he hears "the shrug of *unreal wings*"--while he talks with "toxic zest / Of golf, or taxes, or the rest of it."

The speaker and the listener of "Lying" share a common knowledge:

> We know what boredom is : it is a dull
> Impatience or a fierce velleity,
> A champing wish, stalled by our lassitude,
> To make or do. (Poems 9)

The oxymorons of "fierce velleity" and "champing wish" underscore the sort of lazy dissatisfaction of boredom which has only the energy to sense its dis-ease but not the gumption to overcome indolence and "make or do."

At this point in the poem, the tone changes from *ennui* to attention. The change comes with a realization, a sense of humility, and a catalogue:

> In the strict sense, of course,
> We invent nothing, merely bearing witness
> To what each morning brings again to light:
> Gold crosses, cornices, astonishment
> Of panes, the turbine-vent which natural law
> Spins on the grill-end of the diner's roof,
> Then grass and grackles or, at the end of town
> In sheen-swept pastureland, the horse's neck
> Clothed with its usual thunder, and the stones
> Beginning now to tug their shadows in
> And track the air with glitter. (Poems 9)

Instead of vaporizing about taxes and fictitious grackles, the speaker opens his eyes to the real world where the grackles are real--and interesting. Seeing requires humility--the acknowledgement that we

invent nothing, we merely bear witness to what is. The view as though from a window ("astonishment / Of panes") over roof tops ("Gold crosses, cornices") offers simple spectacles: the turbine-vent on a diner operating by virtue of the mystery of natural law, the horse's neck, a common thing, "clothed with its usual thunder"--suggesting just how unusual the usual is.

> All these things
> Are there before us; there before we look
> Or fail to look; there to be seen or not
> By us, as by the bee's twelve thousand eyes,
> According to our means and purposes. (Poems 9)

Not only the "ordinary," but also the extraordinary exist with or without our attention:

> So too with strangeness not to be ignored,
> Total eclipse or snow upon the rose,
> And so with that most rare conception, nothing. (Poems 9)

The speaker then asks and answers what *nothing*, "that most rare conception," is:

> What is it, after all, but something missed?
> It is the water of a dried-up well
> Gone to assail the cliffs of Labrador. (Poems 9-10)

Nothing is what we see when we fail to see. Saying "[t]here is what galled the arch-negator"--the fact that there is no nothingness, only

lack of vision--the speaker then recounts the malicious determination of Satan, the *ur*-liar, to mar the perfection of Eden as it is told in the ninth book of Paradise Lost:

> There is what galled the arch-negator, sprung
> From Hell to probe with intellectual sight
> The cells and heavens of a given world
> Which he could take but as another prison:
> Small wonder that, pretending not to be,
> He drifted through the bar-like boles of Eden
> In a *black mist low creeping*, dragging down
> And darkening with moody self-absorption
> What, when he left it, lifted and if seen
> From the sun's vantage seethed with vaulting hues.
> (Poems 10)

Satan's dark, self-absorbed imagination, "like a black mist low creeping," changed the coloration of the world; when he withdrew again into his own blackness, the world seen from "the sun's vantage" was alive with rainbow colors.

Satan's fraud, "pretending not to be," and his failure to see the world as it is cause the speaker to make an association and an observation: "Closer to making than the deftest fraud / Is seeing . . ." Seeing is closer to the original creative act than the most skilled imitation.

> Closer to making than the deftest fraud
> Is seeing how the catbird's tail was made
> To counterpoise, on the mock-orange spray,
> Its light, up-tilted spine; or, lighter still,
> How the shucked tunic of an onion, brushed

> To one side on a backlit chopping-board
> And rocked by trifling currents, prints and prints
> Its bright, ribbed shadow like a flapping sail. (Poems 10)

These images so simple, so wonderfully ordinary, so exquisitely observed convey fierce attention and an intense, patient effort to see and say what is there--to see what is present where a casual, bored glance might say there is nothing. The tone is remarkably changed from the poem's opening where the speaker said "[w]e know what boredom is."

Caught in the beautiful lies of likening, the poet describes the phenomenon and asks about the pleasure it gives:

> Odd that a thing is most itself when likened:
> The eye mists over, basil hints of clove,
> The river glazes toward the dam and spills
> To the drubbed rocks below its crashing cullet,
> And in the barnyard near the sawdust-pile
> Some great thing is tormented. Either it is
> A tarp torn loose and in the groaning wind
> Now puffed, now flattened, or a hip-shot beast
> Which tries again, and once again, to rise.
> What, though for pain there is no other word,
> Finds pleasure in the cruellest simile? (Poems 10)

"[A] thing is most itself when likened" because metaphor tacitly acknowledges differences while speaking the similarities. When a shining river is glazed and its water crashing to the rocks below is broken glass, we enjoy the thinking that the river resembles a flowing mirror shattered on the rocks, but we also know that the

river is not solid and the water, not broken; we know that, unlike a mirror, the river can put itself back together again.

Seeing "[s]ome great thing . . . tormented" near a barnyard sawdust-pile, the poet offers our imaginations a choice--either it is a tarp torn loose and alternately filled and flattened by the wind, or it is "a hip-shot beast / Which tries again, and once again, to rise." The pain and cruelty of the second image raises a question: "What . . . / Finds pleasure in the cruellest simile?" How can the poet take pleasure in making and the reader take pleasure in reading such an evocation of the futile struggles of a suffering, frightened animal? The poet gives his answer in another simile:

> It is something in us like the catbird's song
> From neighbor bushes in the grey of morning
> That, harsh or sweet, of its own accord,
> Proclaims its kin. (Poems 10)

The catbird, like its cousin the mocking bird, imitates other birds' songs; it gets its name from one of its mewing call notes that sounds like a cat. In his answer to what finds pleasure in the cruelest simile, Wilbur suggests that we find pure joy in making, in imitation of whatever exists--no matter how painful the image. Yeats declares in "Lapis Lazuli" that "Hamlet and Lear are gay"; in "[t[ragedy wrought to the uttermost," Yeats finds a "[g]aiety transfiguring all that dread": "All things fall and are built again, / And those that build them are gay" (Collected Poems 292). Even tragedy offers the possibility of aesthetic joy. We also find a kinship with whatever is; in the

suffering of a frightened beast, we see the possibility of our own pain, and in pity we imaginatively reach across the barrier of form. Looking becomes a kind of acknowledgment, the attention that must be paid. Wilbur says that our joy in metaphor, like the catbird's song, has primordial origins:

> It is a chant
> Of the first springs, and it is tributary
> To the great lies told with the eyes half-shut
> That have the truth in view (Poems 10-11)

Wilbur mentions three of those "great lies" which have the truth in view. First is "the tale of Chiron / Who, with sage head, wild heart, and planted hoof / Instructed brute Achilles in the lyre" (311). Chiron, an anomaly among the fierce and violent centaurs, was fabled to be good and wise. Homer in The Iliad refers to Chiron as the teacher of Achilles and the "most righteous of Centaurs" (Iliad 11:832). In punning irony, Wilbur reminds us that the righteous centaur taught Achilles to play the *lyre*. The second "great lie" tells--

> . . . of the garden where we first mislaid
> Simplicity of wish and will, forgetting
> Out of what cognate splendor all things came
> To take their scattering names . . . (Poems 12).

The Genesis story of Eden recounts, among other things, how we laid aside simplicity for metaphor. The lying of likening attempts to

recover the "cognate splendor," when common nature and origin were evident, before things fell into difference and took "their scattering names." In his elegy "For W. H. Auden," Wilbur remembers Auden as one "who sustained the civil tongue / In a scattering time" (Poems 26).

The third example of a great lie told with the truth in view is the story of The Song of Roland:

> That matter of a baggage-train surprised
> By a few Gascons in the Pyrenees
> Which, having worked three centuries and more
> In the dark caves of France, poured out at last
> The blood of Roland, who to Charles his king
> And to the dove that hatched the dove-tailed world
> Was faithful unto death, and shamed the Devil. (Poems 11)

Wilbur refers to the evolution of the masterful epic drama *Chanson de Roland* from an historical event of relatively small importance among the military campaigns of Charlemagne. According to fact, a party of Basques attacked the rear-guard of Charlemagne's army as it returned across the Pyrenees from Spain in 778. They slaughtered the rear-guard and pillaged the baggage train. The tale of this attack in the valley of Roncevaux went under ground for several hundred years ("worked three centuries and more / In the dark caves of France") fermenting like wine into "a vast epic of heroic proportions and strong idealogical significance"--the twelfth century *Chanson de Roland* in medieval French. Roland, mentioned briefly in the historical account along with two other of Charlemagne's nobles,

becomes in the epic version "the Emperor's nephew, the 'right hand of his body', the greatest warrior in the world, possessed of supernatural strength and powers and hero of innumerable marvellous exploits." The attack itself becomes "a major episode in the great conflict between Cross and Crescent," and the marauding Basques become "magnified into an enormous army of many thousand Saracens" (Sayers, Introduction 8). The "truth" of the imagined legend became vastly more influential than the facts of the historical event. In a "dove-tailed world" many disparate pieces fit together to make a marvellous whole that celebrates rather than diminishes the parts.

Wilbur's earlier poem "All These Birds" suggests that the kind of boredom that begins "Lying"--the reduction of things to facts of grackles, taxes, or golf--serves as a stimulus to the imagination:

> Let us, with glass or gun,
> Watch (from our clever blinds) the monsters of the sky
> Dwindle to habit, habitat, and song,
> And tell the imagination it is wrong
> Till, lest it be undone,
> it spin a lie
> So fresh, so pure, so rare
> As to possess the air. (Poems 270)

Our clever blindness that would dwindle the world to facts is counterbalanced by the exuberant imagination that will not let the world become ordinary but spins a lie to make us see the wonder.

For Wilbur, the imagination is a natural thing like the birds of the air and should be allowed their high-flying daring.

> Why should it be more shy
> Than chimney-nesting storks, or sparrows on a wall?
> Oh, let it climb wherever it can cling
> Like some great trumpet-vine, a natural thing
> To which all birds that fly
> come natural.
> Come, stranger, sister, dove:
> Put on the reins of love. (Poems 270)

The imagination, "a natural thing," is the way the mind climbs not out of the world but into it, putting the world back together after it has been reduced to "habit, habitat, and song." The imagination, for Wilbur, is "the reins of love" which set things free to be known as themselves.

Falck describes the urge to take on form as an unconscious force that manifests itself in biology and in art:

> The process of falling into shape, or of taking on meaning or value, is an intentionality below the level of conscious intention, and one which belongs neither to the subject nor to the world which the subject experiences, but which makes possible the coming into articulated existence of both . . . . Life . . . is inherently creative and the most exalted achievements of the human 'creative imagination' are from this point of view merely the continuation of the humblest and most ordinary processes of biological adaptation. (38)

Wilbur writes in an essay called "Poetry and Landscape" that "[n]o word touches the heart of things. The word of botany and the word

of poetry each pursue a kind of truth" but Wilbur calls "the word of poetry . . . rather more important because it is spoken by the whole psyche" (89). Wilbur says that his poetry feels to him "ultimately at home in the world" and he finds himself most natural "when engaged in that artificial business" (90).

> Wherever I look in nature, I perceive fluid or energetic form--in soils and rock-formations seen from a plane, in any climbing vine, in club-moss, in dripping tapwater . . . . What I write as my words energetically unravel and shape themselves, is a part of the truth of things, and a gesture toward the sources of form and energy. ("Poetry and Landscape" 90)

Poetry not only expresses the drive toward form inherent in creation; as "a part of the truth of things," poetry also implicitly, and sometimes explicitly, celebrates the sources that impel vine and poem to take on shape and climb.

Wilbur's poem "Hamlen Brook" reflects the form and energy of a world in the process of being and becoming. The poem offers a moment of intense vison which occurs as the casual side effect of a thirsty man bending over a stream for a drink. At "the alder-darkened brink," the poet leans to the water,"dinting its top with sweat," but before he can drink from the stream slowed to "a lucid jet," his attention is caught by what is in and on and above the water. Just as his physical presence disturbs the scene--his sweat dropping on the water startles an "inchling trout / Of spotted near-transparency, / Trawling a shadow solider than he"--the poet's

attention changes the world by framing a unique moment seen from an altered perspective. In quick association, one image flows naturally into another. The tiny trout swerves and darts--

> To where, in a flicked slew
> Of sparks and glittering silt, he weaves
> Through stream-bed rocks, disturbing foundered leaves,
> And butts them out of view
>
> Beneath a sliding glass
> Crazed by the skimming of a brace
> Of burnished dragon-flies across its face,
> In which cloudlets pass
>
> And a white precipice
> Of mirrored birch-trees plunges down
> Toward where the azures of the zenith drown. (Poems 41)

The whole world of Hamlen Brook flickers and shimmers in the slow, clear water--the reflecting stream of the poet's attentive, framing imagination. Stunned he asks, "How shall I drink all this?"

The changed angle of vision and the shimmer of the water dinted by his own drop of sweat suddenly make the whole world breathtakingly there. All is connected in the watery mirror. The poet has his drink, his taste of the world, but he is left with a joyful thirst that can never be satisfied.

> Joy's trick is to supply
> Dry lips with what can cool and slake,
> Leaving them dumbstruck also with an ache
> Nothing can satisfy. (Poems 41)

It takes imagination, not just eyes, to see the world. The poet becomes our Hamlen Brook, showing us the world in the shimmering surface of his poem and leaving us with a life-enhancing ache for ever-more of the world's plenty.

Wilbur values "the resistance of the world, its independence of the mind, its interaction with the mind" and does not want his vision to usurp reality but to bring reality into sharper focus. He does not want a poetry of disembodied ideas:

> What poetry does with ideas is to redeem them from abstraction and submerge them in sensibility; it embodies them in persons and things and surrounds them with a weather of feelings; it thereby tests the ability of any ideas to consort with human nature in its contemporary condition.
> ("On My Own Work" 126)

What Wilbur writes of Frost's response to Hyla Brook is true of his own response to the world: "Loving it for what it is, the poet does not try to elevate his subject, or metamorphose it, or turn it into pure symbol; it is sufficient that his words be lovingly adequate to the plain truth." For Wilbur "the best and happiest dreams of the poet are those that involve no denial of the fact" ("Poetry and Happiness 104). "To me, the imagination is a faculty which fuses things, takes hold of the physical and ideal worlds and makes them one, provisionally. Fantasy . . . is a poetic or artistic activity which leaves something out--it ignores the concrete and the actual in order to create a purely abstract, unreal realm" (qtd. in Stitt, "Interview" 48).

Wilbur fears an imagination detached from the world, lost in its own image-making, seduced away from reality by its own fantasies. Merlin in "Merlin Enthralled" represents such an enchanter who gets lost in his own enchantment and abandons the real. The poem depicts the despair of Arthur, Gawen, and others of the Round Table because Merlin, the wizard who had spun Camelot into being, has disappeared, and their world has lost its magic. Arthur's hand, "*now no less strong*," cannot dream of haling a sword from stone as it could when Merlin was at his king's side. As they rode aimlessly in search of the lost sorcerer, the knights heard "[i]n all the world . . . no unnatural sound":

> Mystery watched them glade by glade;
> They saw it darkle from under leafy brows;
> But leaves were all its voice, and squirrels made
> An alien fracas in the ancient boughs.
>
> Once by a lake-edge something made them stop
> Yet what they found was the thumping of a frog,
> Bugs skating on the shut water-top
> Some hair-like algae bleaching on a log. (Poems 245)

They seek mystery but cannot hear it because it speaks with the voice of leaves or squirrels or a frog; they cannot see it because it looks like water-walking bugs or hair-like algae. Only Gawen thinks he hears for a moment a whitethorn breath the name *Niniane*:

> That Siren's daughter
> Rose in a fort of dreams and spoke the word
> *Sleep*, her voice like dark diving water . . .
> (Poems 245)

Niniane was the enchantress who had enchanted Merlin. Ironically, Merlin himself had made her, and he made her of *natural sounds*--the very sounds Gawen and Arthur ignore. Merlin had imagined this "creature to bewitch a sorcerer" of what he had learned to hear--"[o]f water-sounds and the deep unsoundable swell." Imprisoned himself in the dream of Niniane's "towering spell," Merlin let the world of searching men and horses escape him: "History died; he gathered in its forces" (245). His mind took on the character of the water out of whose sounds he had made his enchantress:

> The mists of time condensed in the still head
>
> Until his mind, as clear as mountain water,
> Went raveling toward the deep transparent dream
> Who bade him sleep. And then the Siren's daughter
> Received him as the sea receives a stream. (Poems 245)

Merlin merged with the natural element out of whose sounds and silence he had imagined his enchantress. He metamorphosed into a dream of his own making.

Michelson writes that "[i]n the poem, Merlin's great art is Camelot itself" (77). However, when Merlin's imagination got caught up in another dream, his mind "went raveling," and "the forsaken will not understand." As Gawen and Arthur rode off weeping,

""[t]heir mail grew quainter as they clopped along. / The sky became a still and woven blue" (Poems 246). Once the force of the enchanter's imagination had left his creation, Camelot became an artifact, a woven tapestry susceptible to unraveling. Unlike Arthur and Gawen, Merlin had heard the natural sounds; he did not dismiss them but he transformed them into something else. He enchanted himself with an image of his own making. Merlin imagined Camelot, a magical kingdom in a real world, but he fantasized Niniane and left the real world behind. For Wilbur, the imagination should lead back to the world, not to a neverland of the mind's making.

To keep itself undeceived by its own images, the imagination needs the honesty and humility to recognize that its creations can only be likenings and not the thing itself. Wilbur would have us remember that we invent nothing, that we merely bear witness. In "A Sketch" Wilbur tries to catch the beauty and wonder of a goldfinch--"more coal than bird"--in stanzas that break and flit like a bright, small bird. The third line of each tercet of the terza rima form breaks into two parts, the second part of the line hopping down the way a nervous, energetic goldfinch moves before we have quite done seeing it on its first perch.

> Into the lower right
> Square of the window frame
> There came
> with scalloped flight
>
> A goldfinch, lit upon
> The dead branch of a pine,

Shining,
and then was gone,

Tossed in a double arc
Up into the thatched
And cross-hatched
pine-needle dark.

Briefly, as fresh drafts stirred
The tree, he dulled and gleamed
And seemed
more coal than bird
(Poems 65)

Third lines enjamb into the next first line; diction and rhythm are alternately syncopal and flowing, mimicking the finch's constant but interrupted movement from "dead branch of pine" into "cross-hatched / pine-needle dark" and onto "perch/ A birch- / twig" then "leaf-choked pane."

After pursuing the bird for seven stanzas, the poet finally gives up and admits " . . . I cannot well / tell you / all that he did" (66). No one frame of the poem can capture the not-still life of the bird, and the poet can not make enough poetry to catch each sequence of the bird in its process of being. No isolated image is enough to stand for the thing itself:

It was like glancing at rough
Sketches tacked on a wall,
And all
so less than enough

Of gold on beaten wing,
I could not choose that one

Be done
as the finished thing.
(Poems 66)

Michelangelo left his Captives unfinished and Leonardo left his preparatory cartoon for The Virgin and Child with St. Anne, but he never completed the painting. Wilbur, too, recognizes the virtue of strategic retreat. The greatest honor and the only truth is to call attention to the marvel of the goldfinch and to show by his success and his failure what cannot be caught. Of the tacked up sketches, "all / so less than enough," he "could not choose that one / Be done / as the finished thing."

"The Beautiful Changes," the title poem of Wilbur's first volume of poetry, presents the difficulty of seeing in a world where beauty camouflages itself in flux. The title itself changes, chameleon-like, according to the reader's understanding. Offering a choice between two grammatical forms, "The Beautiful Changes" can be read as article/adjective/noun or as article/noun/ verb. John Reibetanz points out these two forms can be interpreted in three different ways: first, as a noun with intransitive verb telling us that "what is beautiful is subject to change"; second, as a noun with transitive verb, insisting that "what is beautiful has the power to change things," to transform them; and third, as adjective and noun, suggesting that some changes are beautiful ("What Love Sees" 63). The title phrase is used twice in the short poem in the noun/verb

construction: "The beautiful changes as a forest is changed / By a chameleon's tuning his skin to it" and--

> . . . the beautiful changes
> In such kind ways,
> Wishing ever to sunder
> Things and things' selves for a second finding, to lose
> For a moment all that it touches back to wonder. (Poems 392)

We seem to see best what moves and changes or what disappears. The chameleon tuning his skin to the forest colors acknowledges his surroundings in the very physiology of his pigmentation. And a witness to the chameleon's changing is made to see the colors of the forest because of the impact of the animal's alteration. The chameleon becomes part of the colors of the forest, and the forest becomes chameleon-colored. Similarly, a green praying mantis on a green leaf becomes both part of the leaf visually but in another sense makes the leaf more distinct. The observer must look harder to see both leaf and mantis:

> As a mantis, arranged
> On a green leaf, grows
> Into it, makes the leaf leafier, and proves
> Any greenness is deeper than anyone knows.

The work of the poetic imagination, then, requires bringing together things whose juxtaposition will reveal both likeness (a shared

greenness) and unlikeness (a green insect, a green leaf) and things whose imaginative proximity will revivify our sense of wonder--set us in awe of the possibilities of greenness. The beautiful changes in such various and beneficent ways so that essence can be temporarily separated from gestalt so that they both can be found again, lost in wonder.

As Coleridge described it, the secondary imagination "dissolves, diffuses, dissipates, in order to re-create; or where this process is rendered impossible, yet still, at all events, it struggles to idealize and to unify" (Biographia 167). Art, to sustain the continual effort of relating to "the always changing face of reality," requires "a perpetual revolution of the entire sensibility" (Wilbur, "The Bottles Become New, Too" 223). "Praise in Summer," Wilbur's Spenserian sonnet, addresses the problem of the remaking imagination, the poetic need to take things apart or disarrange them in order to remove the veneer of habitude and renew the sight by renewing the vision. However, this unmaking creates its own problem: what the poet has set out to celebrate is undone in the process--"this mad *instead* / Perverts our praise to uncreation." "Obscurely yet most surely called to praise" by the beauty of summer, the poet turns the world inside out, describing the hills as space through which move star-nosed moles and the sky as a solid like the earth, which is excavated by trees and burrowed into by birds:

> The hills are heavens full of branching ways
> Where star-nosed moles fly overhead the dead;

I said the trees are mines in air, I said
See how the sparrows burrow in the sky!

Then the poet is caught up, made to wonder at his inversion of the natural order:

. . . why
Such savor's in this wrenching things awry.
Does sense so stale that it must needs derange
The world to know it?

Finally, he asks if the world as it is, the world he has been called to praise, is not splendid enough:

To a praiseful eye
Should it not be enough of fresh and strange
That trees grow green, and moles can course in clay,
And sparrows sweep the ceiling of our day?

Ironically, the disarrangements of the first part of the poem--making the hills heaven-space and the air solid to be mined by trees and burrowed by sparrows--prepare us to marvel at the "ordinary." The fey, airy fantasy prepares the reader to see the wonder of the world as it is. Compared to the "star-nosed moles" who fly through an earthy sky, the moles who "can course in clay" seem honest, true, and truly extraordinary. The solid, this-world strength of the last lines is built on what has come before. Playfully, Wilbur in the very last line slips in one final metaphor--"And sparrows sweep the cieiling of our

day"--as the poet's way of answering his own question--"Does sense so stale that it must needs derange / The world to know it?"--affirmatively.

The poem "Juggler" from Ceremony and Other Poems straightforwardly asserts the need for art to disarrange the world so it can be seen again vividly. The first stanza of "Juggler" compares the earth to a ball, finding a new alikeness in the two spheres. Wilbur tells us that it is in the nature of a ball to bounce but that a ball does not love bouncing:

> A ball will bounce, but less and less. It's not
> A light-hearted thing, resents its own resilience.
> Falling is what it loves . . . (Poems 297)

The earth, like a bouncing ball, "falls / So in our hearts from brilliance, / Settles and is forgot" (Poems 297). The ball bounces because of its resilience; the earth falls because of its brilliance. The constant stimulus of the earth's dazzle fatigues our senses, and we become unaware until some "sky-blue juggler with five red balls" appears "[t]o shake our gravity up." Wilbur's "sky-blue" juggler reverses the force of gravity--the pull up, not down. Wheeling on the juggler's hands, the balls learn "the ways of lightness." Like stars or suns, the five red balls "[c]ling to their courses" and swing "a small heaven about the juggler's ears.

> But a heaven is easier made of nothing at all
> Than the earth regained. (Poems 297)

Heaven--the perfect, eternal, sublime, and beautiful--comes easily and seduces the imagination. The juggler, "still and sole," must give up what is easy and make an heroic attempt, "a gesture sure and noble" to call our attention to the things of *this* world:

> He reels that heaven in,
> Landing it ball by ball,
> And trades it all for a broom, a plate, a table. (Poems 297)

Turning to homely objects, the juggler, through his mastery, makes his audience see--briefly, at least--the things of daily life so often disregarded:

> Oh, on his toe the table is turning, the broom's
> Balancing up on his nose, and the plate whirls
> On the tip of the broom! Damn, what a show we cry.
> (Poems 297)

The juggler foils gravity, yanks things from their ordinary places and their ordinary functions. His unusual placement and usage highlights what is normal about the objects. Normally, a table can be counted on to be solid and steady, waiting unnoticed to receive the equally placid plate. The broom rests quietly in a corner till our mundane need for sweeping gives it motion. But the juggler makes memorable what is, like the brilliant earth, settled and forgot. The poet

acknowledges that at the end of the show "All comes down" and that the juggler "bows and says good-bye," but he also sees the needed triumph that saves both objects and audience from the "daily dark":

> If the juggler is tired now, if the broom stands
> In the dust again, if the table starts to drop
> Through the daily dark again, and though the plate
> Lies flat on the table top,
> For him we batter our hands
> Who has won for once over the world's weight. (297)

The world's weight makes us oblivious of the world's presence. Obviously, the poet is a juggler of words and images who lets the reader see "mercury like dew on cabbage-hide" (Poems 74)--what is always there but often overlooked unless the light of imagination shines on it.

"My Father Paints the Summer," a poem from Wilbur's first collection The Beautiful Changes, speaks both of the ability of the imagination to recreate a remembered reality and of the necessity of the imagination to capture the experience in the beginning. Wilbur describes his remembrance of an episode in a seaside resort hotel during a cold, rainy July--a time of unseasonable weather when "summer chills and fails." While the cold, persistent rain confounds the season outside, in a room illuminated "by artificial light," his father, an artist, finds the "hoped-for summer" with his paint brush:

> . . . up in his room by artificial light
> My father paints the summer, and his brush
> Tricks into sight
> The prosperous sleep, the girdling stir and clear steep hush
> Of a summer never seen,
> A granted green. (Poems 363)

His father "tricks into sight" on the canvas an imagined summer, recreated from the attention that had preserved summer's memory. Wilbur's description of the "summer never seen" presents not specifics, but impressions, feelings of summer expressed as movement and stillness: "The prosperous sleep" suggests the indolence of leafed-out trees hanging limp in the heat. The "girdling stir and clear steep hush" convey the alternate faces of a summer--an encircling world of moving, tossing green as a summer storm approaches and the quiet of a heavy summer afternoon when even the birds are silent. With words that are themselves devoid of images but full of the sense of summer, Wilbur like his artist father "tricks into sight . . . [a] granted green." Imagination makes the gift of summer.

However, the imagination can remake summer on a day when the season itself has failed in a chill rain only if the imagination has first "caught summer" while it was present:

> Caught Summer is always an imagined time.
> Time gave it, yes, but time out of any mind.
> There must be prime
> In the heart to beget that season, to reach past rain and find

Riding the palest days
Its perfect blaze.

Time gave it, and green is granted. These words suggest a gift but also the sense of a gift earned: "Time gave it, but time out of any mind. / There must be prime / In the heart to beget that season." Time--the world of perpetually changing seasons--gave this "imagined time," the "caught Summer" on Wilbur's father's canvas. The impressions and experiences of many real summers gained over time make possible the "imagined time" of the painting. Yet, Wilbur says this imagined time was "time out of any mind," playing on the phrase "time out of mind" with its meaning for eons, for periods longer than can be comprehended. As Wilbur uses "time out of any mind," the phrase suggests a time that is not understood by the intellect alone but requires "prime / In the heart." This "prime in the heart" needed to paint the summer recalls Stevens' "The Snow Man" which required "a mind of winter" to behold "nothing that is not there and the nothing that is." Prime may refer to the period of greatest productivity and vigor, but prime also suggests the "prime mover," the first cause, the self-moved being to which all motion is assumed to go back ultimately. In this sense, the artist's recreation of summer is a ripple emanating from the original and ongoing act of creation--as Coleridge said "a replication in the finite mind of the eternal act of creation of the great I AM." The universal process that provides for perpetual change and recreates from that which has

failed stirs the artist to make summer where the season lapsed. The artist becomes an agent of nature, of creation.

Michelson describes Wilbur's poetry as "a poetry of transforming moments and momentary transformations" (82). He says Wilbur's "Digging for China" is a poem "about the need to look for the richest wonders in the daylight of one's actual and immediate surroundings" (187). The poem from Things of This World recounts a boyhood effort to test an undentified speaker's promise that if the boy would dig a hole deep enough he would be able to see the sky in China--"'As clear as at the bottom of a well. / Except it would be real --a different sky'" (Poems 256).[8] Digging further, the boy would get through to the other side of the earth and come out under the China sky where the world would be "'nothing like New Jersey. / There's people, trees, and houses, and all that, / But much, much different. Nothing looks the same'" (256). Naively, the boy gets a trowel and spends the morning on hands and knees digging, sweating "like a coolie." The posture and earnestness were "a sort / of praying." Even though he "tried and tried / To dream a place where nothing was the same," he seemed not to succeed: "The trowel never did break through to blue" (256).

But then, having tired of being head down in a hole and looking into darkness, the boy stands up, only to have his vision of China:

> Before the dream could weary of itself
> My eyes were tired of looking into darkness,
> My sunbaked head of hanging down a hole.

I stood up in a place I had forgotten,
Blinking and staggering while the earth went round
And showed me silver barns, the fields dozing
In palls of brightness, patens growing and gone
In the tides of leaves, and the whole sky china blue.
Until I got my balance back again
All that I saw was China, China, China. (Poems 256)

Dizzy from turning himself upside down in a hole to look for something extraordinary, the boy stands up in a place that he had forgotten only to see the wonders that always surrounded him. The dizzily turning earth shows him silver barns, fields sleeping under "palls of brightness," and patens growing and disappearing in the trees. *Pall* as a noun can mean a fine cloth for covering something (like a coffin or tomb), an altar cloth or a linen cloth for covering the chalice, or an overspreading element that produces an effect of gloom. As a verb, pall can mean to lose in interest or attraction, to become tired of something at first pleasurable, or to deprive of pleasure in something by cloying or satiating. The "palls of brightness," momentarily visible to the dizzy boy, remind us of the earth's brillance which in the "Juggler" causes it to fall in our hearts, settle, and be forgot; we become so satiated by the perpetual dazzle and beauty that we lose interest in the earth unless it takes on the allure of China. A "paten" is a thin metal disk or something resembling one or a plate of precious metal used for the bread in the eucharistic service. "Patens growing and gone / In the tides of leaves" suggests the golden disks of light that can glow and fade in

the vision when a person experiences vertigo. The light-headed boy sees the sunlight streaming through the trees transformed into golden patens. In the vertiginous vision that follows his "sort / Of praying," the whole sky is china blue. And until he gets his "balance" back, all he sees is China, a place with a "real--a different sky," a place where nothing looks the same.

Catching a sudden glimpse of the world in "Hamlen Brook," the stunned poet asks, "How shall I drink all this?" Impelled by a desire to lay claim to the world by uttering the names of things, Wilbur combines an openness to the world with a refusal to etheralize things. His poetry expresses moments of tension between his formative mind and the reality his mind insists on recognizing. Wilbur values the world's resistance to his shaping imagination, the sense of struggling with something powerfully other. In the process of the struggle, nature supplies the metaphors and images whereby we can know it and ourselves. "Lying" in metaphor is a way of telling the truths of the imagination. Wilbur counts on poetry to redeem ideas from abstraction. He is wary of the danger of the imagination's being seduced by its own images--enthralled like Merlin and estranged from the real world by a concocted fantasy world. Wilbur also recognizes the limits of the imagination. He knows that we invent nothing, merely bear witness to what is already there. He also knows that no image is complete or can equal the thing itself. His "Sketch" of the goldfinch can never capture the finished thing. Even so, we do need the imagination just to see the

world; "caught summer" is always an imagined time. In "Praise in Summer" Wilbur asks if sense so stales that "it needs derange / The world to know it." In that poem and in "Juggler" he answers yes and declares it the poet's business to win for us over the world's weight which "falls / So in our hearts from brilliance, / Settles and is forgot." The poet knows we must dig to find the blue of China over our heads.

Sunlight and Fog--Metaphors for the Imagination

The metaphors Wilbur and Eiseley choose for imagination, the powerful agent that links the conscious to the unconscious and both to the world, reflect the personal temperaments which color their writings. Wilbur is frequently *homo ludens*, the artist at play, delighting in making with words. He is at home in the world, and his dominant metaphor for the imagination is sunlight--as he entitled a poem, "Sunlight Is Imagination." Sunlight inevitably implies shadow, however, and Wilbur's poetry is dappled with the true light of common day. Eiseley, by contrast, prefers the dark of the night country to sunlit day. He is melancholic, haunted and tantalized by his fear of death, and obsessed with his sense of being a lost one, a fugitive stranded out of his proper time and place. His dominant metaphor for imagination is water, especially an ominous underground current or a tentative, exploring fog moving surreptitiously through space and time. Describing water, Eiseley could be speaking of the imagination:

> If there is magic on this planet, it is contained in water . . . . a wind ripple may be translating itself into life. Thin vapors, rust, wet tar and sun are an alembic remarkably like the mind; they throw off odorous shadows that threaten to take real shape when no one is looking. (IJ 15)

His description of water's omnipresence and creative and destructive power also applies to the the imagination: "Its substance reaches everywhere; it touches the past and prepares the future; it moves under the poles and wanders thinly in the heights of air. It can assume forms of exquisite perfection in a snow flake, or strip the living to a single shining bone cast up by the sea" (IJ 16). Whether symbolized by sunlight or water, the imagination is a powerful force that can change our perceptions of reality, alter our concepts of good and evil, and unify the seeming chaos of experience into a coherent whole.

In the essay "The Noble Rider and the Sound of Words" in The Necessary Angel, Wallace Stevens identifies the subject matter of poetry by defining reality: "The subject-matter of poetry is not that 'collection of solid, static objects extended in space' but the life that is lived in the scene that it composes; and so reality is not that external scene but the life that is lived in it" (25). Later, in "The Figure of the Youth as Virile Poet" Stevens defines "true imagination" as "the sum of our faculties." Describing poetry as "the scholar's art," Stevens then compares the imagination to "light itself":

> The acute intelligence of the imagination, the illimitable resources of its memory, its power to possess the moment it perceives--if we were speaking of light itself, and thinking of the relationship between objects and light, no further demonstration would be necessary. Like light, it adds nothing, except itself. (Stevens, Necessary Angel 61)

Light adds nothing but itself, but light is everything. Light changes things--adding energy, making color visible, giving form, definition, solidity, and shadow. The imagination, like sunlight, lets us see the world, casting such a light upon the things of this world that we can in fact see past our habit of not seeing. Light is incarnating. Just as sunlight provides the photosynthetic energy upon which plant and animal life depend, the sunlight of the imagination brings the world to life in our minds.

"The Fourth of July": "Praise to all fire-fledged knowledge"

Wilbur's poem "The Fourth of July," which Hecht says may be the best thing to come out of the American Bicentennial (130), is an intricately connected piece woven of disparate elements into a whole, successfully linking together Lewis Carroll, Ulysses Grant, Alice in Wonderland, Linnaeus, Copernicus, and "these States" whose birth is celebrated. These diverse characters are bound by the sunlight and shade of a given day and by the complexity of the nature of words, of language, and of knowing--the sum of our faculties, the imagination. Mary Kinzie describes "The Fourth of July" as "one of

the finest and most difficult poems, Wilbur has ever written" and says that it illustrates "the curvature of mind which makes him such an intellectually exciting poet" ("The Cheshire Smile" 19).

The poem is dedicated to I. A. Richards under whom Wilbur worked for a while at Harvard and with whom he had contact later at Wesleyan (Conversations 159, 203). In answer to a question ("Have you ever met anyone whom you thought to be truly great?") put by interviewers from The Amherst Student Review, Wilbur said that he found the quality of "greatness" in Richards:

> This greatness seemed to me to lie not necessarily in his ideas, or in any system of ideas he had come up with, but in the extraordinary verve and adventurousness of his mind. You had a perfect uncertainty as to where he would go next. He had an absolute readiness to take on whatever problematical thing arose in his path. Richards' great delight is mountain climbing, and the operations of his mind have the same type of daring that you associate with that sport.
>
> (qtd. in Bogan and Kaplan 159)

Wilbur's dedication of the poem to I. A. Richards helps explain how the poem works. The people--historical and fictional--mentioned in "The Fourth of July" have the same sort of daring, adventurous minds as Richards possessed, willing to see what before had not been seen, to try what before had not been tried. Even the country--"these states"--embarked on a great, never-before-attempted adventure to make the guarantee of human liberty a government's *raison d'etre*.

Wilbur's "Fourth of July" is connected to Richards in other ways. The poem's fascination with the web of words and celebration of two kinds of exploration and knowing--poetry and science--reflect interests that enthralled Richards throughout his life. In Poetries and Sciences, Richards describes his understanding of the dynamics of a poem and how words are differently used by a scientist and a poet. Richards writes that the nonlogical aspects (tone, occasion) of discourse--the very things science endeavours to eliminate--are the primary factors by which we interpret either poetry or a conversation:

> In nearly all poetry the sound and feel of the words, what is often called the form of the poem in opposition to its content, get to work first, and the senses in which the words are later more explicitly taken are subtly influenced by this fact. Most words are ambiguous as regards their plain sense, especially poetry. We can take them as we please in a variety of senses. The senses we are pleased to choose are those which most suit the impluses already stirring and giving form to the verse. Thus *the form often seems an inexplicable premonition of a meaning which we have not yet grasped* . (Richards 31; emphasis added)

Richards here describes how form works for the reader of a poem--as "an inexplicable premonition" of meaning which the reader has yet to understand. Wilbur describes how form works from the perspective of a writer of poems: "I think of a poem of mine as discovering, in the process of its writing, the formal means which will back up its statement and increase its precision" (qtd. in Dacey119).

Describing his "organic" method of composition, Wilbur says that he starts out "with a partial sense of a poem's tone of voice, theme, and probable length." He says that "as the first words of the poem arrive," the words themselves seem to prescribe--"if I am well attuned to my half-guessed purpose"--various elements such as "rhythm, sonority and line length," and that the preliminary words "after a provisional line or two . . . also seem to suggest rhyme, stanza division, or the like" (qtd. in Dacey118-119). Thus, both Richards and Wilbur describe form as a pre-linguistic or extra-linguistic facilitator of meaning.

Richards and Wilbur also offer similar analyses of the intentions and strategies of a poet and the effects of these on readers. Wilbur writes that "[t]here would be no reason to write a poem if one were not aiming at an unusual fullness and accuracy of statement." To achieve that fullness and accuracy, "the poet must use words, rhythms and sounds in subtle, concentrated, deliberate ways, hoping at the same time to give an illusion of offhand delivery." Sincerity, for Wilbur, "lies not merely in meaning something but also taking the crafty trouble to embody the meaning exactly and coercively" (qtd. in Dacey 121-122).

Richards explains in Poetries and Sciences how form coerces meaning: "In its use of words most poetry is the reverse of science" (32). Precise things are said in poetry, but not because logic guides word choice, eliminating all possibilities of meaning but one--the method of science. Although the poet may not be able to describe

his/her method, he or she--even when writing in prose--uses manner, tone, voice, cadence, and rhythm to play upon our interests to make "the reader pick out the precise particular senses required from an indefinite number of possible senses which a word, phrase or sentence may carry" (Richards 32). Richards describes the dynamic created by the poet's use of words "*as a means of ordering, controlling and consolidating* the uttered experience of which they themselves are a main part" (33). The experience itself, "the tide of impulses sweeping through the mind," is the "source and sanction of the words." The words themselves come to represent the experience and will reproduce in the mind of a suitable reader, "a similar play of interests putting him for the while into a similar situation and leading to the same response" (33). For the poet, the words are the effect of the experience; for the reader, the words are the cause of the experience: "In both cases [the words] are the part of the experience which binds it together, which gives it a definite structure and keeps it from being a mere welter of disconnected impulses" (Richards 34). Wilbur's poem "The Fourth of July" demonstrates how a "welter of disconnected impulses" becomes through words a cohesive whole, first in the mind of the poet and then in the mind of the reader.

The form of "Fourth of July" offers insight into its meanings. In each of the five eleven-line stanzas, Wilbur keeps the same intricate rhyme scheme; each stanza follows the pattern *a, b, a, c, b, c, d, a, d, e, e*. The basic meter is iambic pentameter with some variation in

stresses for emphasis; however, in each stanza, the fifth and seventh lines are trimeter. Thus, the complex form of this poem, tailoring the words to the fitting rooms of rhyme and meter, exerts tight control over what intially seems the extremely various content of the poem. Numbering the stanzas 1 through 5 (a tactic uncommon to Wilbur's poems) would seem to imply a sequence of straight-forward progression from one step to another. That is not what occurs. The first stanza confines itself to highly allusive references to the circumstances under which Lewis Carroll began his tales of Alice. The second stanza--linked by sun and shade imagery, great rivers, and a particular date to the first--confines itself to Ulysses S. Grant's search for military stratagems to bring the Confederates at Vicksburg to "terms." Stanza three questions the premises that have bound the first two stanzas and even wonders about the power of words to unify while simultaneously using the word "termless" to link itself to what has preceded and what then follows. With the fourth stanza, Wilbur turns to Linnaeus and his triumph and tragedy with words. Unlike the preceding stanzas which are grammatically complete, the fourth stanza enjambs into the fifth. The last three lines of stanza four begin a paean of praise to "fire-fledged knowledge" which links, by contrast, to Copernicus. The sentence which starts with "Praise" in stanza four begins its end in stanza five with "and honor to these States." Thus, what binds the poem is not superficially logical connections but imaginative leaps represented by the creative intuitions of those named within the poem and of the poet's

conceiving and expressing of their connectedness through imagery and their shared problems with words. The technically complex form of the poem itself presents another struggle. The demanding structure has the exactitude and precision of science; it tries and purifies the imaginative leaps and poetic vision in the retort of its discipline.

Sunlight is the unifying image in "Fourth of July." Sunlight, Wilbur's recurrent symbol for the imagination, dapples the poem with light and shade. In the first stanza, sunlight is implied in the golden shade under the hay rick: Mr. Dodgson gives the girls tea, "[s]hading their minds with golden fantasy." The "spangled, blindly flowing Thames" describes a sunlight so dazzling that it both bejewels and blinds the river. In stanza two, the "sun's / Mid-morning fire beats on a wider stream." Sunlight appears in the haze clearing on Hard Times Landing and in the "settling smoke," both phenomena made manifest by sunlight. The sun is reaffirmed as a reality, not an image or symbol, in stanza three: "The sun is not a concept but a star. / What if its rays were once conjointly blurred / By tea-fumes and a general's cigar?" Sunlight is also implicit by its absence in "the shade" of the termless wood where Alice stood. In stanza four, "the bald unknown" encroaches like a shadow upon Linnaeus's "memory, cell by cell." Sunlight is embodied in the "tree-named" Linnaeus; sunlight actually becomes substances in the leaves of a tree and is released further up the food chain as thought energy

--imagination. Knowledge then is indeed "fire-fledged"--it comes literally from the sun. In stanza five the sun is the "solar disc" to which Copernicus's vision leapt, and it is the light of "this day"--the July fourths of past and present.

All of these elements are present from the first stanza. On July 4, 1862, as Wilbur points out in a note to this poem, Lewis Carroll--"their oarsman, Mr. Dodgson"--was allowed by "Liddell, the Oxford lexicographer" (Liddell was dean of Christ Church Oxford and co-editor with Robert Scott of the Greek-English Lexicon) to take Liddell's three small daughters--Alice, Lorina, and Edith--on an outing, rowing on the Thames "from Folly Bridge to Godstow."[9]

> 1.
> Liddell, the Oxford lexicographer,
> Allowed his three small daughters on this day
> To row from Folly Bridge to Godstow, where
> Their oarsman, Mr. Dodgson, gave them tea
> Beneath a rick of hay,
> Shading their minds with golden fantasy. (Poems 69)

Giving his young companions tea "|b|eneath a rick of hay," Mr. Dodgson, himself an Oxford mathematician and logician, shades "their mind with golden fantasy." Sunlight as imagination is implicit in the golden shade beneath the hay rick and as the actual streaming photons which spangle the "blindly flowing Thames." Speaking of the golden fantasy, Wilbur writes:

> And it was all fool's gold
> Croquet or caucus madder than a hare,
> That universe of which he sipped and told,
> Mocking all grammars, codes, and theorems . . . (69).

Ironically, "that universe" of which Dodgson, the mathematician and logician, "sipped and told" mocked "all grammars, codes, and theorems"; he created an imaginative world in which none of the usual operatives on which we depend to maintain rational order worked. Wilbur obviously delights in the irony that Dodgson told his tales subverting grammars and codes to the children of a lexicographer.

The world of Wonderland and Through the Looking Glass overturns the standards: 1) grammar--the usual patterns and arrangements of word structures in languages, 2) codes-- the systematized rules for conduct or the assignment of specific meaning to symbols, and 3) theorems--guiding propositions evolved from accepted premises. In Wonderland and Through the Looking Glass all the rules are broken, nothing is as usual or as it seems. Knowing is not possible. Lewis Carroll's playfulness invites the reader to see the absurdity of "normal" reality in the heightened absurdity of Alice's adventures, to recognize the instability of any order and the possibility of *other* grammars, codes and theorems. As James Playsted Wood explains in The Snark *Was* a Boojum, his biography of Lewis Carroll, the story that seemed to its author to come of itself, had its own truth:

> The children knew that Dodgson was not making the story up through an effort of will. It was just something he knew and that he had always known and was telling them. They knew the story was true, not true because it was reasonable or in the way that the alphabet or a birthday is true, but true because, like a fact of nature, it existed. It was like the river. It was like the sunny afternoon. It was like themselves. It just was. (Wood 60).

Paradoxically--although the words of his stories seemed to flow of themselves, without any effort of the author to concoct--Dodgson sought the company of young children because of his chronic trouble with words. He suffered from a stammer which grew worse when he was ill at ease but "disappeared altogether when he was talking with small children" (Wood 15).

Dodgson's golden shade is made of fool's gold, a fantastical treasure, the "croquet or caucus madder than a hare." Wilbur's line refers to the episode in Alice's Adventures in Wonderland when Alice and the Queen and court play a frenentic and irregular croquet --traditionally the most genteel and English of games--on a ground "all ridges and furrows." The players use--or try to use--live flamingos as mallets, live hedgehogs for balls, and the playing card soldiers doubled over on hands and feet to make the arched hoops of the wickets. Played in Wonderland, croquet is a very difficult game indeed:

> The chief difficulty Alice found at first was in managing her flamingo: she succeeded in getting its body tucked away, comfortably enough, under her arm, with its legs hanging down, but generally, just as she had got its neck nicely

> straightened out, and was going to give the hedgehog a blow with its head, it would twist itself round and look up in her face, with such a puzzled expression that she could not help bursting out laughing: and when she had got its head down, and was going to begin again, it was very provoking to find that the hedgehog had unrolled itself, and was in the act of crawling away: besides all this, there was generally a ridge or a furrow in the way wherever she wanted to send the hedgehog to, and, as the doubled-up soldiers were always getting up and walking off to other parts of the ground, Alice soon came to the conclusion that it was a very difficult game indeed. (Carroll, Alice's Adventures 71)

Likewise, the Caucus-race to which Wilbur also alludes was a muddle which could only be explained by doing it:

> First [the Dodo] marked out the racecourse, in a sort of circle ('the exact shape doesn't matter,' it said), and then all the party were placed along the course, here and there. There was no 'One, two, three, and away,' but they began running when they liked, and left off when they liked, so that it was not easy to know when the race was over. However, when they had been running half an hour or so . . . the Dodo suddenly called out 'The race is over!' and they all crowded round it, panting, and asking 'But who has won?' (Carroll, Alice's Adventures 19).

Of course, the only solution is that "'Everybody has won, and all must have prizes'" (19). Both games are madder than the Hare who is mad, the Cheshire Cat assures Alice, because "'we're all mad here'"--Alice included or she would not have come. The universe of which the tutor of mathematics and logic told was "madder than a hare" and mocked "all grammars, codes, and theorems."

Wilbur shifts the scene in the second stanza--"the sun's / mid-morning fire beat on a wider stream." The river is not the Thames but the Mississsippi, and Wilbur's notes to his poem inform the reader that Vicksburg fell to General Grant on July 4, 1863, a year to the day after Dodgson's outing which led to the Alice tales and the stammering mathematician's metamorphosis into Lewis Carroll. Wilbur turns to another man who had trouble with words.

> 2.
> Off to the west, in Memphis, where the sun's
> Mid-morning fire beat on a wider stream,
> His purpose headstrong as a river runs,
> Grant closed a smoky door on aides and guards
> And chewed through scheme on scheme
> For toppling Vicksburg like a house of cards.
> The haze at last would clear
> On Hard Times Landing, Porter's wallowed guns,
> The circling trenches that in just a year
> Brought the starved rebels through the settling smoke
> To ask for terms beside a stunted oak. (Poems 69)

The lines which describe Grant as closing a "smoky door on aides and guards" and chewing "through scheme on scheme" suggest the year-long struggle of the cigar-smoking general to formulate a strategy to take the seemingly impregnable Vicksburg. Jefferson Davis called the town situated on a bluff overlooking the Mississippi "'the nailhead that held the South's two halves together'" (Korny 16).[10] Descriptions of the Union general in Gene Smith's "dual biography," Lee and Grant coincide with Wilbur's sense of a taciturn man, "[h]is

purpose headstrong as a river runs," who "closed a smoky door on aides and guards":

> Grant in his rusty and seedy uniform, the gold cord on his hat battered and worn, his coat open and lapels buttoned back, sat with his staff and listened while they talked about Vicksburg. When he got up and paced about, he did so with his hands jammed in his pockets and with the ever-present cigar in his mouth. He looked like a country storekeeper or western farmer, and none of his men . . . ever decided exactly how their chief's mind worked. They did not know what he was thinking, or even, they said, if he ever thought at all.
> (Smith 148)

His aide General William Sherman said Grant knew nothing of military history and was dangerously impervious to fear but still managed to generate faith in his ability. Sherman said, "'He is a mystery to me and I believe also to himself'" (qtd. in Smith 148). "A mystery and a sphinx, silent, inarticulate," Grant, when he finally woke from his torpor, "leaped into a campaign the conclusion of which would find him compared with Hannibal invading Italy, with Napoleon at Ulm, the equal of Alexander and Caesar" (Smith 149).[11]

In addition to repeating the sun and shade motif, Wilbur subtly connects the first two stanzas for readers who remember the Red Queen's guards: "toppling Vicksburg like a house of cards" recalls the playing card soldiers who *doubled* for wickets during the mad croquet match in Alice's Adventures. "The haze at last would clear"--the fog which obscured a successful military stratagem, the smoke of Grant's cigar, the puzzlement of Grant's worried aides, the summer

mist "[o]n Hard Times Landing."[12] "[I]n just a year" to the day from Dodgson's adventure and with the help of the circling trenches of Grant's forty-seven-day seige and the "wallowed guns" of the Union Admiral Porter,[13] "the starved rebels" were brought "through the settling smoke / To ask for terms beside a stunted oak.'

Then, in stanza three, Wilbur seems to confront his own methodology: Is it valid to juxtapose two so different events--Charles Dodgson's invention of Alice in Wonderland and Ulysses Grant's strategy to take Vicksburg--under the neat coincidence that both culminated on the same date a year a part under the same sun? Are images of sunlight and shade, rivers and river journeys, spangle and smoke enough to bind the events imaginatively?

> 3.
> The sun is not a concept but a star.
> What if its rays were once conjointly blurred
> By tea-fumes and a general's cigar? (Poems 69)

Having questioned the validity of his artifice, the unity imposed upon his poem, Wilbur asks a broader, more fundamental question:

> Though, as for that, what grand arcanum saves
> Appearances, what word
> Holds all from foundering in points and waves? (Poems 69)

What secret, what great mystery preserves the appearances we call reality?[14] What imagination connects the multiplicity of seemingly random objects and events of creation? What word keeps all from

disassembling into mere "points and waves"--dissolving into the dual nature of light itself? Strikingly, Wilbur describes the unifying force as a word. Then the poet suggests an ideal world, a peacable kingdom not held together by words and not divided by words:

> No doubt the fairest game
> Play only in the groves where creatures are
> At one, distinct, and innocent of name. (Poems 70)

Wilbur describes this idyllic place as the world which "Alice found, who in the termless wood/ Lacked words to thank the shade in which she stood." In a note to these lines, Wilbur points out that the "'termless wood' may be found in Through the Looking Glass, Chapter III" (111).

During her conversation with Gnat after admitting that she does not "*rejoice*" in insects, Alice does say that she can name some of them. On learning that the insects where Alice comes from do not answer to their names, Gnat asks what is the the use of their having names. Alice replies: "No use to *them*. . . but it's useful to the people that name them, I suppose. If not, why do things have names at all? (Through the Looking Glass 147). Gnat admits that he cannot say but tells Alice of a wood where "'they've got no names'" (148). After Gnat sighs itself away in one of its melancholic exhalations, Alice wanders off into the cool shade of the wood where names are lost and where she "[l]acked words to thank the shade in which she stood":

> 'Well at any rate it's a great comfort,' she said as she stepped under the trees, 'after being so hot, to get into the--into the--into *what*?' she went on, rather surprised at not being able to think of the word. 'I mean to get under the--under the --under *this*, you know!' putting her hand on the trunk of the tree. 'What *does* it call itself? I do believe it's got no name--why, to be sure it hasn't!' (Through the Looking Glass 151)

Alice adventures into a nonsolipsistic world where things--shadow as well as tree--exist whether she can name them or not. Reality triumphs over words, over human naming and ordering. The "termless wood" is a place of unity where things exist and are known prior to language.

While in the "termless wood," Alice encounters a Fawn; she walks along "her arms lovingly round the soft neck of the Fawn, till they come to another field . . . " (153). Once out of the wood and into the meadow, naming / identity reasserts:

> . . . the Fawn gave a sudden bound into the air, and shook itself free from Alice's arms. 'I'm a Fawn!' it cried out in a voice of delight. 'And, dear me, you're a human child!' A sudden look of alarm came into its beautiful brown eyes, and in another moment it had darted away at full speed.
>
> (Through the Looking Glass 153)

With her companion's abrupt departure, Alice is ready to cry with vexation but she consoles herself: "'However, I know my name now . . . that's some comfort'" (153). Thus, words are the source of both loss and consolation.

Wilbur's adjective "termless" describing Alice's wood is another connector than subtly binds the stanzas of "The Fourth of July" together. The poem is about words or "terms"--their power and their impotence. Wilbur plays on the multiple meanings of the word term and its derivative "termless."[15] The latter generally means "limitless, boundless"--without term when term has its original meaning as "a point of time designating the beginning or end of a period" or "a period of time having definite limits." "Termless" can also mean "unconditional"--without terms as the "conditions of a contract, agreement . . . that limit or define its scope or the action involved," as the "terms" of a treaty. With "termless wood," however, Wilbur plays on another sense of "termless" based on additional meanings of the word "term." Term also means "a word or phrase having a limiting and definite meaning in some science, art, etc.," or "any word or phrase used in a definite or precise sense" or "terms"--"words that express ideas in a limited or special forms." In its transitive verb form, "term" means "to call by a term, to name." Thus the wood is "termless" because it disallows the use of words for naming, isolating objects in a definite and precise sense. In addition, as evidenced by Alice's initial loving and fearless relationship with the Fawn, another meaning of "terms" applies-- a "mutual relationship between or among persons." Termlessness allows "those groves where creature are / At one, distinct, and innocent of name," but , on the other hand, Alice and the Fawn cannot know each other in the fullness of their differences. Alice and the Fawn cannot name themselves to each

other or talk about the world they inhabit. It is no accident that they quickly move out into an open field; otherwise the story could not continue.

The art of literature is not possible in the "termless wood," but logic and mathematics also fail. In logic, term means "either of two concepts that have a stated relation, as the subject and predicate of a proposition" or "any one of the three parts of a syllogism." In mathematics, "term" can mean "either of the two quantities of a fraction ration," or "each of the quantities in a series," or "each of the quantities connected by plus or minus signs in an algebraic expression." Therefore, in this "termless wood" created by the mathematician and logician Dodgson, the rational, philosophical, scientific world held together by "terms" founders. The world remains but humans can no longer impose imaginative or intellectual order.

Although Wilbur admits that "No doubt the fairest game / Play only in those groves . . ." of the termless wood, he adds a qualifying "Nevertheless" at the beginning of the fourth stanza:

> 4.
> Nevertheless, no kindly swoon befell
> Tree-named Linnaeus when the bald unknown
> Encroached upon his memory, cell by cell,
> And he, whose love of all things made had brought
> Bird, beast, fish, plant, and stone
> Into the reaches of his branchy thought,
> Lost bitterly to mind
> Their names' sweet Latin and his own as well. (Poems 70)

In a note to these lines, Wilbur cites Eiseley's Darwin's Century as one of his sources of information about Linnaeus. Recalling the work of some of those who served as precursors to Darwin's theory of evolution, Eiseley writes of Linnaeus: "The genius must receive extraordinary support and co-operation in intellectual circles. Linnaeus wrote and flourished in a time when *the educated public had become fascinated with the word, the delight in sheer naming*" (DC 17; emphasis added). Eiseley further describes the period:

> It was at last the full if early morning of the scientific age. All over the world the night was passing and strange beautiful plants were opening their flowers to the sun. *In that time of unfolding beauty the purpose of science was still largely to name and marvel.* In that art there was none to surpass Carolus Linnaeus. (DC 18; emphasis added)

Through Linnaeus's efforts the earlier "confused, unsystematic, and verbose" methods of naming plants and animals were replaced by the system of binomial nomenclature in Latin--the first name generic, indicating "a general group of creatures visibly related" and the second adjectival, "denoting a restricted specific group" (DC 20-21).

Eiseley writes of the poetry of Linnaeus's nature--"his Whitmanesque love of the incredible variety of life":

> It was basically this poetic hunger of the mind to experience personally every leaf, flower, and bird that could be

> encompassed in a single life which explains his gigantic labors. He was the naming genius par excellence, a new Adam in the world's great garden, drunk with the utter wonder of creation. (DC 19)

However, for this man who became in the eighteenth century "the symbol of science itself," life contained major ironies:

> Not least among the ironies of Linnaeus's career is the fact that he whose taxonomy had, before his death, come to stand for the sure fixity an eternal order of relationships in the world of life should have entertained discreet doubts as to its reality." (DC 18-19)

Linnaeus had proclaimed the "fixity of species"--"*Nullae species novae*," that there were no new species, that all species had come "from original pairs created on a small island, which in the beginning, had constituted the only dry land, the original Eden of the world" (DC 25). But Linnaeus's theory--the faith that underlay his science and his religion--was taxed by the reality he so loved. Confronted with the "sportiveness" of nature and trying to cling to his original thesis, Linnaeus struggled "to distinguish between the true species of the Creator and the varietal confusion and disorder of the moment, which might be artificially manipulated by the skill of gardeners" (DC 25). Eiseley discerns a "growing uncertainty and doubt" in later editions of the *Systema Naturae*:

> He cautiously removes from later editions of the *Systema* the statement that no new species can arise. The fixity of species, *the precise definition of the term*, is no longer secure. "*Nullae*

> *species novae*" had been accepted by the world, but to the master taxonomist who had drawn the lines of relationship with geometric precision all was now wavering toward mutability and formlessness. (DC 25; emphasis added)

Having lost "*the precise definition of the term*," Linnaeus entered his first "termless wood." The second and final came later.

Wilbur, in one of the notes to "The Fourth of July" quotes from an eighteenth century biography of Sir Charles Linnaeus by D. H. Stoever to explain that, according to Swedish custom and family example, Linneaus's father took his family name from a linden tree near the family's native place in Sweden. Thus, Wilbur's pun on Linnaeus's "branchy thought" alludes to both Linnaeus's systematic diagrams of the branches of various species of flora and also to the botanist's tree name. In an explanatory note to the poem, Wilbur quotes Eiseley regarding the final, terrible irony of Linneaus's life: "Owing to a stroke, Linneaus lost in his latter years 'the knowledge even of his own name.'" (Poems 112). The "termless wood" thus becomes manifest in the aged scientist who was named for a tree and who saw his "terms" undermined by the evidence of his eyes and who was finally robbed of all "terms"--even his tree name--by the stroke that robbed him of words. Kinzie says that in Wilbur's poem Linnaeus "stands as synedoche for the whole imaginary forest . . ." ("The Cheshire Smile" 19). Linnaeus, unlike Alice, never got out of the "termless wood" once he entered it.

Eiseley, citing Linnaeus's "poetic brooding over time and destiny," quoted the taxonomist's eulogy for great botanists.

Linnaeus had written that though the "'knowledge of the true and original Tree of Life'" was lost, the plants which remain and renew their flowers will "'exhale the sweet memory'" of the men whose own names name them, making them "'more lasting than marble, so they will outlive those of kings and heroes. . . . [T]he whole of nature must be obliterated before the genera of plants disappear and he be forgotten who held the torch aloft in botany'" (qtd. in DC 19-29). Eiseley saw in those words the "nostalgia and melancholy of a man who, even at the height of his success, knew with preternatural insight that . . . 'fate is always against great things'" (20). Eiseley, another scientist with a poetic hunger and Whitmanesque love of the variety of life, writes a beautiful summation of the ironies of Linnaeus's fate:

> There is something awe-inspiringly symbolic about the stroke that destroyed his mental competence. It savors of the divine nemesis of which he had once written and long feared. He who in youth had beheld the beautiful lines of life gleam for an instant like a spider web on a dew-hung morning glimpsed a truth which, as is true of so much human knowledge, was also an illusion. The rainbow bridge to the city of the gods had vanished, leaving an old memoryless man. The passionate cataloguer of the *Systema Naturae* no longer knew his book. Finally and most dreadful fate of all, there passed away from the proud, world-famous man the knowledge even of his own name. There remained in his garden only the dried husk of an old plant among new flowers reaching for the sun. (DC 25-26)

Having read this passage by Eiseley, Wilbur wrote that " . . . no kindly swoon befell / Tree-named Linnaeus when the bald unknown

/ Encroached upon his memory, cell by cell" and caused to be "[l]ost bitterly to mind" the names of all the things of this world which he had loved.

In the fourth and fifth stanzas of "The Fourth of July," Wilbur praises both poetry and science as ways of knowing. First, he honors the kind of knowing that comes through "negative capability," knowing that passes through the fire of "uncertainties, Mysteries, doubts" and does not require the proof of fact and reason:

> Praise to all fire-fledged knowledge of the kind
> That, stooped beneath a hospitable roof,
> Brings only hunch and gaiety for proof . . . (70).

To "fledge" means to rear a young bird until it is able to fly; to be "fire-fledged" suggests a fierce kind of upbringing--a coming to feathers through scorching, as the phoenix is born from the ashes of its incinerated self. "[S]tooped beneath a hospitable roof" calls to mind something-that-would-be-larger confined by its dwelling place--knowledge limited by the knower's brain case, the boundaries of human perception, intellect, and imagination. But the phrase implies also human beings limited by the universe that crowds the far-traveling imagination that would reach beyond the barriers of matter. However, though crowding, the roof is "hospitable," offering the guest kindness, comfort, and beauty if not spaciousness. This "fire-fledged knowledge Wilbur praises "[b]rings only hunch and gaiety for proof," a high-spirited intellectual adventurousness that

delights in challenging "the known" with only premonitions of the unknown. In an interview, Wilbur has said that he believes in a "redeeming gaiety," a "gaiety in art which confronts the most desperate things": "What art needs to do, as Milton said, is to reflect how all things 'Rising or falling still advance His praise,' and in the process to make a full acknowledgement of fallen-ness, doubt, and death" (qtd. in Dacey 121). In "Lapis Lazuli" Yeats refers to "[g]aiety transfiguring all that dread."

Having praised "fire-fledged knowledge" based on hunch and gaiety, Wilbur adds another kind of knowing to his celebration:

> 5.
> But also to Copernicus, who when
> His vision leapt into the solar disc
> And set the earth to wheeling, waited then
> To see what slate or quadrant might exact,
> Not hesitant to risk
> His dream-stuff in the fitting-rooms of fact" (70)

Copernicus, the Polish clergyman and student of mathematics, philosophy, and astronomy, becomes the ideal model for this second kind of knowing--imaginative conceptions that have their basis and are tried in the measurable world of science. Copernicus was "[n]ot hesitant to risk / His dream-stuff in the fitting-rooms of fact." Copernicus had read the few ancient writers who suggested that the earth turns on its own axis and also revolves about the sun; he also knew the Ptolemaic view (an elaboration of the earth-centered Aristotelean view) which declared that the spherical earth is the

motionless center of the universe about which the celestial sphere rotates.[16] Ptolemy's sytematized compendium of ancient astronomical knowledge was transmitted to the West in the *Almagest* and dominated the understanding of astronomy for over one thousand years (Kesten 159). However, despite the universal credence given the Ptolemaic system, Copernicus could not accept the artificial complexity of Ptolemy's epicycles and eccentrics; he compared his own observations--with the naked eye, before the invention of the telescope--to the celestial observations of those ancients who took a heliocentric view. Out of his years of observation and study and "with the help of God" came *De Revolutionibus*, the manuscript in which he set out to prove the earth turns on its axis and revolves about the sun in a universe much larger than the Ptolemaic conception allowed. Given that "[n]o duty is more completely neglected by men than their duty to become wiser," how did Copernicus have the perspicacity and courage to side with classical passages generally considered absurd by almost all the thinkers of antiquity and contradicted by all Christendom? "Religion was naturally inclined to hold the earth, the seat of mankind, as the center of the world. And language obeyed (as it still does today) appearances" (Kesten 165).

The enormity of Copernicus' imaginative leap, his intuitive genius is conveyed in the following passage from an essay, *Nicolaus Copernicus*, by Georg Christoph Lichtenberg; it is quoted in Hermann Kesten's book Copernicus and his World:

> . . . Now just think: this idea condemned by the greatest sages of antiquity, an idea which was disreputable, awkward, dangerous and seemingly contemptible . . . this idea comes to Copernicus' notice from casual descriptions; it arouses his attention, he tests it--and defends it. This was done by a fifteenth-century canon, living among canons . . . not in the gentle climate of Greece and Italy, but among the Sarmats in a region which at that time was on the frontiers of the civilized world. He follows up this idea with indefatigable patience, not for a couple of years, but throughout half of his seventy-year long life; compares it with the sky, finally corroborates it, and thus becomes the founder of a New Testament of astronomy. And he achieves all this . . . almost a hundred years before the invention of the telescope, with wretched wooden instruments, on which the divisions were often shown only by lines marked in ink. If he is not a great man, who in the world can claim such a title? This was the work of the spirit of order that dwelt in him, the spirit that itself originates in heaven and manifested its own nature in his work, and discovered order all the more easily because it remained free through inner strength. (qtd. in Kesten 165)

Thus the Copernicus whom Wilbur includes in his praise made an imaginative leap of faith in science. With the words of *De Revolutionibus Orbium Coelestium Libri VI* (the title given to his work by its editors), Copernicus offered humanity a world view based on discernible observations and reproducible calculations, liberating the imagination from the confines of the Ptolemaic system, which Lichtenberg described as "the most delicate, most artificial and at the same time the strangest mixture of sagacity, subtlety and delusion that the human mind had ever accepted" (qtd. in Kesten 160).

For Michelson, the last lines of "The Fourth of July" seem too summary and trite, a too-neat wrapping up and a congratulatory assumption that now then we will get it right:

> And honor to these States,
> Which come to see that black men too are men,
> Beginning, after troubled sleep, debates,
> Great bloodshed, and a century's delay,
> To mean what once we said upon this day.

Michelson says the poem finishes up "too quickly" and is ill-proportioned, giving less attention to our country's crisis than to Linnaeus's senility or Copernicus's solar theory:

> The point--unhappily one can use that word here--is that the republic is finally taking its opening words to heart, the ones about all men being created equal, and that as a culture we are reconciling our dream stuff with reality, remaking the truth to fit the word and the idea. . . . And the final line, with its suspicious "we," cannot but ring with patrician complacency, oratory from the bandstand, in the park, in the all-white part of town. (Michelson 112)

However, the ending may be far more more subtle and subversive than it first appears. Given all the previous allusions to Alice's Adventures in Wonderland and Through the Looking Glass and the considerable emphasis on the ambiguity of meaning and language, one can fairly wonder if the last line--"To mean what once we said upon this day"--might allude to the conversation among Alice, the Mad Hatter, the March Hare, and the Dormouse in the "Mad

Tea-Party" chapter of Alice's Adventures in Wonderland. Alice is admonished by the March Hare to say what she means. Insisting that she does, Alice replies, " . . . at least, I mean what I say--that's the same thing you know" (58). Her companions do not know that at all:

> 'Not the same thing a bit!' said the Hatter. 'You might just as well say that "I see what I eat" is the same thing as "I eat what I see"!'
>
> 'You might just as well say,' added the March Hare,'that "I like what I get" is the same thing as "I get what I like"!'
>
> 'You might just as well say,' added the Dormouse, who seemed to be talking in his sleep, 'that "I breathe when I sleep" is the same thing as "I sleep when I breathe" !'
>
> 'It is the same thing with you,' said the Hatter. . . . (Carroll 58)

Some further evidence suggests that when he wrote the last line of "The Fourth of July"--"To mean what once we said upon this day"--Wilbur may have been thinking of the tea party discussion of whether meaning what you say is the same as saying what you mean. After some moments of silence (during which Alice considers the riddle of ravens and writing desks which had provoked the above interchange), the Hatter asks Alice what day of the month it is: "Alice considered a little, and then said 'The Fourth'" (58).

Thus, meaning "what once we said we said upon this day" is undermined for those who remember their Alice. What actually did the forefathers (Washington and Jefferson among others were slaveholders) mean in writing "all men are created equal and are

endowed by their Creator with certain unalienable rights"? And just who was being guaranteed the right to life, liberty, and the pursuit of happiness--and who was not? Did the forefathers perhaps mean more than they could act and did they leave the redeeming of those words to later generations? Wilbur suggests that we now must give far more inclusive meaning to what was said on that day and that we must must marry our actions to our words, to mean what we now say.

Words, at least human words, do not make the nonhuman world; the tree stands, the shade cools whether Alice can name them or not. But words do contribute to making the world inside and among us and do facilitate the imaginative contact with all that is beyond. In response to being told by a magazine editor that the word "depletion" had been spoiled "because readers couldn't look at it without thinking of Texas and the oil depletion allowance," Wilbur wrote back saying that "we musn't let words be spoiled, that we must always figure that we can redeem anything that has been used and misused, however badly" (qtd. in "Poet-to-Poet" 240). Wilbur's redemptive vision is manifest in this poem; the proof is in the working out of the poem itself. The dedication of "The Fourth of July" to I. A. Richards, the celebration of great imaginative adventurers in both science and poetry, the struggle with words--by Dodgson, Grant, Alice, Linnaeus, and Copernicus, by Wilbur himself--suggest what human effort and human gaiety (the delight in creation) can do. The last lines which turn to the occasion--a Fourth

of July declaration--are not at variance with what has gone before or an abrupt moral tag. They affirm both the possibility and the uncertainty of making / finding meaning with words.

One may reasonably ask if Wilbur is not trying to put too much together in "Fourth of July." In another context Wilbur asked that question himself. Wilbur wrote of Yeats' poem "King and No King" and his own proud elucidation thereof: "One must question the integrity, the artistic self-sufficiency, of any short poem that requires to be grasped through the reading of a bad five-act play and the consultation of a biography" ("Round About a Poem of Housman's" 35). Though defending the poet's rights to literary and historical allusions, Wilbur recognizes misuses of the past, like antiquarian pedantry, which can "distract us from the uninterpreted fields and streets and rooms of the present, in which the real battles of the imagination must be fought" (37):

> The past which most properly concerns the poet is, as T. S. Eliot has said, both temporal and timeless. Above all it is a great index of human possibilities. It is a dimension in which we behold, and are beheld by all those forms of excellence and depravity that men have assumed and may assume again. The poet needs this lively past as a means of viewing the present without provinciality, and of saying much in little; he must hope for the tact and the talent to make the past usable for the audience that his poems imply.
>
> ("Round About a Poem of Housman's" 38)

Discussing the use of allusion, Wilbur insists that "to evoke a legitimate emotional response . . . a reference must in every case be

proven . . . . it should be the use of the reference, and not its inherent prestige, which demands response" (qtd. in Cummins 18).[17] In "The Fourth of July" Wilbur teaches us the power of words, that things can indeed be held together by words, but only if we are willing to share in the perpetual struggle for terms.

In his words for the cantata "On Freedom's Ground" Wilbur asks us to "[m]ourn for the dead who died for this country" and to "[g]rieve for the ways in which we betrayed them / How we robbed their graves of a reason to die" (Poems 45-46). He then rehearses the ways in which we betrayed those who fought and died for freedom:

> The tribes pushed west, and the treaties broken
> The image of God on the auction block,
> The immigrant scorned, and the striker beaten,
> The vote denied to liberty's daughters.

Asking what we can salvage from this shame, he answers, "Be proud at least that we know we were wrong" and then adds this celebration:

> Praise to this land for our power to change it,
> To confess our misdoings, to mend what we can,
> To learn what we mean and to make it the law,
> To become what we said we were going to be. (Poems 46)

For Wilbur, poetry arises out of community. Poetry is both "a self-shaping activity of the whole society, a collective activity by

means of which a society creates a vision of itself, arranges its values, or adopts or adapts a culture," and poetry is poems written by poets as a "specific, expert, and tributary form of the general imaginative activity" ("Poetry and Happiness" 92). In "Poetry and Happiness," Wilbur says that, ideally, the poetry of an individual poet should help to clarify, enrich, and refresh the poetry of a people--"that ensemble of articulate values by means of which a society shapes and affirms itself" (108). However, in America he finds the poet isolated because we lack a nationally unifying culture:

> . . . one cannot deny that in the full sense of the word 'culture' --the sense that has to do with the humane unity of a whole people--our nation is impoverished. *We are not an articulate organism*, and what most characterizes our life is a disjunction and incoherence aggravated by an intolerable rate of change. (107; emphasis added)

Unlike Dante who lived and wrote, as T. S. Eliot said, "'at the center of a diamond,'" the modern American poet "has no sufficient cultural heart from which to write" ("Poetry and Happiness" 106). Wilbur says that "the poet hankers to write in and for a culture, countering its centrifugal development by continually fabricating a common and inclusive language in which all things are connected" ("Poetry and Happiness" 109). He declares that "we cannot enjoy poetic happiness, until the inner paradise is brought to terms with the world before us, and our vision fuses with the view from the window" (105).[18] In his essay "On My Own Work," Wilbur says that "the incoherence of

America need not enforce a stance of alienation in the poet; rather, it may be seen as placing on him a peculiar imaginative burden, and commiting him perhaps to something like Yeats's long and loyal quarrel with his native Ireland" (116). Whitman called America the greatest poem and demanded poets who would create the necessary unifying archetypes for a disparate democracy. Reflecting the nation's own birth, Wilbur makes his celebration of the American Bicentennial of splendid fragments bound by the words of an imaginative vision. With words, he calls us to honor the terms of liberty and justice, the imaginative adventure on which our country was founded.

The Innocent Fox: " . . . the thing that lives in the midst of the bones"

The primitive response to mystery, "[t]o a world suspected of being woven together by unseen forces," was the organizing power of magic. Though crude and imperfect, magic is still, according to Eiseley, "man's first abstraction from nature, his first attempt to link disparate objects by the unseen attraction between them" (UU 32). Imagination itself is a kind of magical conjuring, drawing out the unseen connections. Eiseley speaks of encountering "along the borders of the known that 'awful power' which Wordsworth characterized as the human imagination" (ST 273). He remembers Wordsworth's description of the imagination rising suddenly from the mind's abyss and enwrapping the solitary traveler like a mist. In

"The Innocent Fox" the God-like imagination takes the form of a curious, enveloping fog. The essay binds together five different episodes from the author's life in a search for meaning and miracle. Like Wilbur's poem "The Fourth of July," Eiseley's essay brings together a variety of elements that are bound imaginatively by an all pervasive symbol--in Wilbur's poem the sunlight, in Eiseley's essay the fog. Unlike Wilbur who made his poem out of a conglomeration of events and other people, Eiseley uses episodes from his own life--however fictionalized--as the elements to be bound by the powerful magic of imagination.

From the opening of "The Innocent Fox," Eiseley sets a mood of mystery and persistent longing for something not yet understood. He declares himself and his fellow human beings to be seekers after meaning, searchers who have found in nature their first manuscripts of inscrutable hieroglyphs. Humankind has been haunted by vague intuitions of meaning ever since the first person looked into a still pool at "an impossible visage" and saw it tremble and disappear at a touch. The image maker (and dissolver) "went home and created a legend" to speak of what could not be fully understood or explained. According to Eiseley, these meanings have been felt "even in the wood, where the trees leaned over . . . manifesting a vast and living presence. . . . The great trees never spoke but man knew that dryads slipped among their boles" (ST 53). And Eiseley believed that "the compulsive reading of such manuscripts"--the hieroglyphs of nature --will continue long after the volumes that contain humankind's

inmost thought have been "sealed away by the indefatigable spider" (ST 53). In his essay "The Chresmologue," Eiseley describes humankind as part of what Emerson called the mutable cloud of Nature, part of the hieroglyphic code. More than a single puzzle, man "is an indecipherable palimpsest, a walking document initialed and obscured by the scrawled testimony of a hundred ages" (NC 59). Written in his features and "the very texture of his bones are the half-effaced signatures of what he has been, of what he is, or of what he may become" (NC 60).

Characterizing himself not as a "daylight reader" like some, but a "librarian of the night," Eiseley says that his "ephemeral documents consist of root-inscribed bones or whatever rustles in thickets upon solitary walks" (ST 53). Insisting that the compulsion to illuminate the night suggests "that we know more of the shadows than we are willing to recognize," Eiseley says that "[w]e have come from the dark wood of the past, and our bodies carry the scars and unhealed wounds of that transition. Our minds are haunted by night terrors that arise from the subterranean domain of racial and private memories" (ST 53-54). We inhabit, Eiseley says, "a spiritual twilight on this planet," a feeling of loss that is not so much a deprivation as "an unrealized anticipation": "We imagine we are day creatures, but we grope in a lawless and smoky realm toward an exit that eludes us. We appear to know instinctively that such an exit exists" (ST 54). Quoting Santayana that "life is a movement from the forgotten into the unexpected," Eiseley asserts that man would not be here if it

were not to find the gates or mysterious holes in the hedge that "a child would know at once led to some other dimension at the world's end" (ST 54). Though the business of humankind is to look for the gates and openings that lead to the unforseen, too many adults are blindered by the preoccupations of living. In his tale of the fox cub, Eiseley recounts how a creature, young but not at all unreal or baffling or mysterious, helped him cross the threshold into another dimension.

Having established a mood of eeriness, longing, and expectation, Eiseley recounts an autumn night in 1967 when one of those holes in the hedge appeared for him. Looking out from his study at "the attic cupola of an old Victorian house," he saw a brilliant blue light blaze like a lightning flash in the high dormer window. He recognized that what he saw was a "giant bolt of artificial lightning . . . playing from a condenser, leaping at inervals across the interior of the black pane in the distance" (ST 55). Eiseley, the watcher, says that for years he had seen nothing out of his study window but "the relentless advance of suburban housing" and nothing "that did not spell the death of something I loved" (ST 55). But in those instant flashings he recognized the kind of artificial lightning that only a very few engineers with special equipment could produce. He fantasized that some "mad scientists" in a hidden room were engaged in a "fantastic experiment," "some remarkable and unheard of adventure" (ST 56). He tantalized himself with thinking that "there was a fresh intelligence groping after some

secret beyond pure technology." Watching, night after night, "while the leaves thinned and the bolt leaped at its appointed hour," he dreamed, of "that coruscating arc revivifying flesh or leaping sentient beyond it into some unguessed state of being. Only for such purposes . . . would a man toil in an attic room at midnight" (ST 56).

And then, as suddenly as the phenomenon began, it ended. Eiseley watched but no lightning flashed. While he waited expectantly, nothing happened except that the autumn rains brought down the leaves which "yellowed the wet walks below the street lamps" and birds flew across the face of the moon (ST 56-57). Disappointed, Eiseley came to feel the episode expressed the recurrent limitations of science:

> [The episode] . . . was altogether too much like science itself--science with its lightning bolts, its bubbling retorts, its elusive promises of perfection. All too frequently the dream ended in a downpour of rain and leaves upon wet walks. The men involved had a way, like my mysterious neighbors, of vanishing silently and leaving, if anything at all, corroding bits of metal out of which no one could make sense" (ST 57).

Eiseley had come to the episode at a time when he was growing dimly aware, despite his "encasing cocoon of books and papers," that something was missing from his life: "I was . . . trapped in the despair . . . the utterly hopeless fear confined to moderns--that no miracles can ever happen" (ST 55). It had been the charm of the unexpected and the beautiful which had attracted him to science, but he had come to a point in his life when "something more was needed"

and that something "verged on a miracle" though he, as a scientist, did not believe in miracles. Eiseley defines a miracle as an event without continuity in the natural order; it appears and disappears suddenly, dissolving or opposing the natural order. He also observes that this loose definition of miracle--something that both suddenly appears and disappears in opposition to the natural order--"*strangely . . . would include each individual person*" (ST 57; emphasis added).

Eiseley recognized that his "whole life had been unconsciously a search" not restricted to the bones and stones of paleontology. This heightened awareness of a need for something more came for Eiseley at an age which allowed folly and demanded "a boldness that the young frequently cannot afford": "All I needed to do was to set forth either mentally or physically, but to where escaped me" (ST 55). His disappointment at the fruitless watching for his mad scientists to return led him to conclude that the experience had been "only a tantalizing expectation, a hint that I must look elsewhere than in retorts or coiled wire, however formidable the powers that could be coerced to inhabit them." He abandoned this "autumnal, sad magic" with "a growing feeling that miracles were particularly concerned with life, with the animal aspect of things" (ST 57). Thus, in a receptive mood and having promised himself a journey, Eiseley answered a summons that made necessary "a long night drive over poor roads through a dense forest" (ST 57). He calls that journey "a near approach to what I was seeking." Eiseley was ready for the

ensuing adventure because he had discovered that a miracle cannot simply be seen; one must refine one's perceptions and must be "reasonably sophisticated even to *perceive* the miraculous. It takes experience; otherwise, more miracles would be encountered" (ST 58).

Eiseley describes a "journey of descent through the mountains"; alone on the twisting and turning road, he sees foliage lit by "the earthly starshine of eyes under leaves" and then intervals of "impenetrable gloom buttressed by the trunks of huge pines" (ST 58). Weary and still longing for that something more, the driver becomes "dimly aware" of something just beyond the reach of his headlights, a creature "amazingly fleet" whose outline he never really saw:

> It seemed, at times . . . to be running upright like a man, or, again, its color appeared to shift in a multiform illusion. Sometimes it seemed to be bounding forward. Sometimes it seemed to present a face me and dance backward. From weary consciousness of an animal I grew slowly aware that the being caught momentarily in my flickering headlights was as much a shape-shifter as the wolf in a folk tale. It was not an animal; it was a gliding, leaping mythology. (ST 58)

Eiseley says that, though lost, he "understood the forest"; his blood "was not urban," coming from other times and "a far place," almost not human. Even so, he feels "the horror that even animals feel before the disruption of the natural order" (ST 59). He wonders if, in fact, there is a natural order but then considers the question absurd: "Why should life tremble before the unexpected if it had not already anticipated the answer? *There was no order. Or, better, what order*

there might be was far wilder and more formidable than that conjured up by human effort" (ST 59; emphasis added). Thus Eiseley has the intuition of a system that contains but is not limited by the human interpretations of life, matter, motion, and time. This wilder, more formidable order must be far larger and more complex than the kingdom, phylum, class, order, and species that human beings use to describe living things; the periodic table that orders chemical elements by weight; the laws of thermodynamics; and the measurement of time by the speed of light.

A simple, ordinary explanation of what flew before him is not possible because *knowing* in the context of this wilder, more formidable order is not possible. Wryly, Eiseley observes that "[i]t did not help in the least to make out finally that the creature who had assigned himself to me was an absurdly spotted dog of dubious affinities," a dog whose coat had "the curious properties generally attributable to a magician"(ST 59). These "curious properties" are elucidated in the epigraph Eiseley chose for "The Innocent fox," a qutotation from Peter Beagle:

> 'Only to a magician is the world forever fluid, infinitely mutable and eternally new. Only he knows the secret of change, only he knows truly that all things are crouched in eagerness to become something else, and it is from this universal tension that he draws his power.' (qtd. in ST 53)

Eiseley casts himself as a magician who sees the world "forever fluid, infinitely mutable and eternally new." Knowing the secret of change

and that all things crouch in eagerness to become something else, he cannot not say "what shape this dog had originally possessed a half-mile down the road," had "no way of securing [the dog's] word for it," and could not be sure it would remain a dog as it disappeared into the night. What he has called dog is a phantasm--"an illusory succession of forms finally, but momentarily, frozen into the shape 'dog' by me. A word, no more" (ST 59). What he has called dog escapes the confines of his perception and his ordering:

> . . . it had been picked by me out of a running weave of colors and faces into which it would lapse once more as it bounded silently into the inhuman, unpopulated wood. We deceive ourselves if we think our self-drawn categories exist there. The dog would simply become once more an endless running series of forms, which would not, the instant I might vanish, any longer know themselves as 'dog.' (ST 59).

Eiseley, too, had found a termless wood where words and categories fail.

Eiseley extends this shape-shifting to describe his very concept of himself. The "mental effort peculiar to man" could not hold the phantoms it wrenched into flesh, neither man nor dog:

> We were contradictions and unreal. A nerve net and the lens of an eye had created us. Like the dog I was destined to leap away at last into the unknown wood. My flesh, my own seemingly unique individuality, was already slipping like flying mist, like the colors of the dog, away from the little parcel of my bones. *If there was order in us, it was the order of change.*" (ST 59; emphasis added).

Chastened and unsure, Eiseley is left knowing only that "something was running and changing in the haunted wood" and that likewise his mind was "leaping and also changing as it sped" (ST 59-60). Through his leaping, changing mind would come "my own miracle . . . in its own time and fashion."

These episodes--the vain search for the miraculous in artificial lightning bolts and the pursuit of some alluring, shape-shifting phantom--prepare for the revelation which follows when Eiseley's "true miracle" comes "in its own time and fashion" (ST 60). He describes being left alone on "an unengaging and unfrequented shore" near the broken prow of a boat left on the beach "by the whim of ancient currents." The bleached "upthrust ribs" of the boat carcass become a symbolic artifact connecting to the "little parcel of my bones" from which Eiseley has perceived his flesh and his seemingly unique individuality slipping. The boat ribs also become the harbinger for the bones that follow--the emaciated body of Eiseley's dying father and the bones that are part of the "small miracle" Eiseley finally experiences. The fading autumn light of the late afternoon matches the elegaic feel of the isolated beach with its wrecked remains. Details convey the sense of an ephemeral, uncertain, fading world--the heavy sand which seems to draw the subsiding boat into it, the "shifting coast," the wavering horizon with "the tenuous outlines of a misplaced building, growing increasingly insubstantial" (ST 60).

What follows is both real and unreal, a kind of half awake dream vision taking place, we later learn, during the cold hours of a night spent under the overhang of the foundered boat. The beach world becomes even more insubstantial and mysterious with the appearance of the fog. Its "extending immensity" swallows the voices of Eiseley's departing companions, trails in wisps over the boat staves, and fingers "the tracks of some small animal, as though engaged in a belated dialogue with the creature's mind" (ST 60). The humanized fog hesitates "as though puzzled" over the crisscrossing tracks and then approaches and enwraps Eiseley who realizes "that I was not intended immediately to leave" (ST 60). Resting against the overturned boat, Eiseley watches as the stillness intensifies and nothing escapes "the wandering tendrils of the fog":

> "The broken cup of a wild bird's egg was *touched tentatively, as if with meaning, for the first time*. I saw a sand-colored ghost crab, hitherto hidden and immobile, begin to sidle amidst the beach grass *as though imbued suddenly with a will derived ultimately from the fog*. A gull passed high overhead, but *its cry took on the plaint of something other than itself*."
> (ST 60; emphasis added)

The egg, the crab, the gull are each changed by the touch of the God-like fog. The egg takes on meaning, the ghost crab is suddenly invested with a will, the gull is touched by a mysterious otherness. Eiseley remembers what he calls a primitive dialogue of the sort that contains "not outworn speculations." The discussion centered on "whether God is a mist or merely a mist maker," a question Eiseley

finds neither irrational nor blasphemous: "How else would so great a being, assuming his existence, be able thoroughly to investigate his world, or, perhaps, merely a world that he had come upon, than as he was now proceeding to do?"(ST 60-61). Obviously, "so great a being" would be able to investigate thoroughly any world in ways not necessarily within the reaches of the human imagination. The question is really: How else can the human imagination conceive so great a being except as an exploring mist--or as a swan or a rain of gold or cloven tongues of fire, as a voice from a burning bush or out of a whirlwind.?

Water is Eiseley's most frequent symbol for the fecund imagination. Water is where life began, and combined with sunlight and the elements, water continues its furtive breeding: "If there is magic on this planet, it is contained in water. . . . a wind ripple may be translating itself into life. Thin vapors, rust, wet tar and sun are an alembic remarkably like the mind; they throw off odorous shadows that threaten to take real shape when no one is looking" (IJ 15). Eiseley relates the birth of his mythic persona to water--listening to the sound of the sea in a shell, following the ominous lure of underground water to the places below, feeling his isolated self dissolve and merge with the Platte River. Like water that reaches under, on, and above the earth, the imagination reaches beyond the known into the unknown, searching past and future. Like water which "can assume forms of exquisite perfection in a snow flake, or strip the living to a single shining bone cast up by the sea" (IJ 16),

the imagination has tremendous potential for both creation and destruction. In "The Innocent Fox," water mists into an all-pervasive fog.

Closing his eyes and allowing "the tiny diffused droplets of the fog" to explore his face, Eiseley feels "some unexplained affinity": "I felt my mind drawn inland, to pour smoking and gigantic as the fog itself, through the gorges of a neighboring mountain range" (ST 61). Man makes God in the image of a fog and then makes himself in the image of God; the likeness between God and human are likeness of imagination. Divine or human, the imagination fills the world with its curiosity and its search, its positing of meaning and will, and its perception of otherness. The imagination escapes the confines of time and place and the boundaries of selfhood. Like an immense mist, the imagination envelops and interpenetrates, blurring separateness and erasing the illusion of form.

Eiseley describes his consciousness, only partly aware, in "a little shaft of falling light," moving like a mist, swirling "dimly over the tombstones of a fallen cemetery": "Something within me touched half-obliterated names and dates before sliding imperceptibly onward toward an errand in the city" (ST 61). That errand to the future is in interrupted, however, by a rising of his correcting, protective consciousness to a higher level of awareness. He perceives the lightening of the dream as a mercy guiding him away from the revelations that the errand to future might hold.

As suddenly as he had been dispersed like a mist, Eiseley is collected again, called "back among the boat timbers and the broken shell of something that had not achieved existence" (ST 61). He is haunted by a line from the dead poet Charles Williams: "'I am the thing that lives in the midst of the bones.'" He recognizes himself as a small form frozen or otherwise altered into a solid or semisolid state from the immense fluid mist: "It was true. I was merely condensed from that greater fog to a smaller congelation of droplets. Vague and smoky wisplets of thought were my extensions" (ST 61).

With this last line, consciousness again lightens, and like the probing fingers of fog, his dreaming imagination explores not the future, but the past: "From a rack of bone no more substantial than the broken boat ribs on the beach, I was moving like that larger, all-investigating fog through the doorways of the past" (ST 61). In his vision, the year is announced on a blowing newspaper as 1929, and the fog is transformed into a blizzard beating on the gate of St. Elizabeth's Hospital. Eiseley himself is transformed, coalescing out of the snowstorm--"I was no longer the blizzard"--and becoming "a small dark shadow" hurrying up a stairway toward the sound of "a labored and importunate breathing" (ST 61).

Imaginatively, Eiseley has returned again to the bed of his dying father--"wracked, yellow, and cadaverous." He remembers the moribund man's preoccupation and the mere flicker of recognition for his younger son: " . . . he knew me only as one lamp is briefly lit from another in the windy night" (ST 61). Eiseley realizes in his

dream what he had been too young to understand as he stood beside the death bed. His father was being held in life by "a magnificent heart that would not die," pursuing some unanswered question: "He was beyond speech, but a question was there, occupying the dying mind, excluding the living, something before which all remaining thought had to be mustered" (ST 61). Now, as "the hurrying shadow drawn from the wrecked boat" and "the insubstantial substance of memory, the dispersed droplets of the ranging fog," Eiseley the son would try to "interpret and relive the question."

In memory, Eiseley watches as his father, in a last lucid moment, holds up his hands, the strong hands of a craftsman and the only parts of his body left unravaged by his illness. A shadow come back across forty years, Eiseley the son watches as his father, another shadow, "the mist in the gaping bones," appears to ponder as the "seemingly untouched deathless instruments rally as though with one last purpose before the demanding will" (ST 62). As he perceived the fog touch the egg with meaning, Eiseley invests his father's actions with meaning. The dying shadow seems to ask his living hands: "'Why are you, my hands, so separate from me at death, yet still to be commanded? Why have you served me, you who are alive and ingeniously clever?'" (ST 62). The dying man seems to have stepped outside of life and to be looking back, trying to understand the meaning of it: "He was outside, he was trying to look into the secret purposes of things, and the hands, the masterful hands, were the only purposes remaining, while he, increasingly

without center, was vanishing" (ST 62). To Eiseley, it seemed that his father's last thought was of these hands which had become strangers and denied the answer to his last question.

Suddenly, stiff with the night's cold, Eiseley awakens; consciousness brings him back to the overhang of the boat. He is "no longer the extension of a blizzard beating against immovable gates" and the year is no longer a year of locust plagues in Nebraska but the present of the essay, "the year of the mist maker that some obscure Macusi[19] witch doctor had chosen to call god" (ST 62). In the way that the fog had earlier touched the egg, the crab, and the gull and had seemed to endow them with meaning, will, and otherness, it also touched the man: " . . . the mist maker had gone over the long-abandoned beach, touching for his inscrutable purposes only the broken shell of the nonexistent, only the tracks of a wayward fox, only a man who serving the mist maker, could be made to stream wispily through the interstices of time" (ST 62). This streaming wispily through the crevices of time and space had taken the form of dream and memory; awakening as the fog and night were lifting, the anthropologist says that he chose not to examine his own hands. Returned from his far journey, Eiseley crouched in his heavy sheepskin waiting "without thought as the witch doctor might have waited for the morning dispersion of his god" (ST 63). As the dawn touched the sea and the worn timbers of the boat beside which he had sheltered, Eiseley the watcher begins to glimpse the world form

the "different perspective" that he had said earlier was necessary to perceiving a miracle.

As he sighs remembering the miracle sought and lost in the fantastic flashes of artificial lightning that his presumed mad scientists had played with so tantalizingly before they abruptly disappeared, Eiseley sees his bonafide miracle: "I saw it because I was hunched at ground level smelling rank of fox, and no longer gazing with upright human arrogance upon the things of this world" (ST 63). He has earned his miracle in the way of mystics and visionaries--by recognizing and following a not clearly understood and unanswerable longing, by making his journey through the dark night of the soul, by revisiting painful memories, by humbling himself, changing perspective, and becoming quiet and receptive.

His wandering attention centers on "nothing but two small projecting ears lit by the morning sun" and beneath them "a small neat face" looking shyly up. Crinkling only with curiosity and not fear, the ears of the fox cub move in response to every sound. The man, however, recognizes that the creature is very young and alone in "a dread universe." Eiseley says that he crawled around the prow of the boat and crouched beside the cub. There the man is invited to step across the illusion of form, to crawl through the hole in the hedge he had so long sought:

> He innocently selected what I think was a chicken bone from an untidy pile of splintered rubbish and shook it at me invitingly. There was a vast and playful humor in his face. . . .

> . . . here was the thing in the midst of the bones, the wide-eyed innocent fox inviting me to play, with the innate courtesy of its two forepaws placed appealingly together, along with a mock shake of the head. (ST 63-64)

Remembering the British poacher in a pub who swore he would kill the last fox in the world if he could, Eiseley says he crouched even further and more painfully "away from human stature." In this prayerful posture, Eiseley experiences the undoing of the old law that one can never "get around to the front of the universe" and thus can see the universe only from its far side, realizing "nature only in retreat." With the young fox's playful invitation, "[t]he universe was swinging in some fantastic fashion around to present its face, and the face was so small that the universe itself was laughing" (ST 64).

Eiseley concludes that this was no time for human dignity but a time "only for the careful observance of amenities written behind the stars":

> Gravely I arranged my forepaws while the puppy whimpered with ill-concealed excitement. I drew the breath of a fox's den into my nostrils. On impulse, I picked up clumsily a whiter bone and shook it in teeth that had not entirely forgotten their original purpose. Round and round we tumbled for one ecstatic moment. (ST 64)

For that brief moment, the evolution into separateness is suspended and the man and the fox together become "the innocent thing in the midst of the bones"--the playful, exuberant, inexorable life urge that is "born in the egg, born in the den, born in the dark cave with the

stone ax close to hand, born at last in human guise to grow coldly remote in the room with the rifle rack upon the wall" (ST 64). Eiseley, however, is triumphant because he has had his miracle, has seen "the universe as it begins for all things. . . . a child's universe, a tiny and laughing universe" (ST 64).

Quickly, before the magic ends, before the rising sun burns away the mist of imagination and brings back the "normal" world, Eiseley rolls the cub over on its back and flees for the nearest ridge. On the way he passes an adult fox returning to its den after a night of hunting. The fox and the man pass watchfully but their eyes do not meet; they are separated by their experiences of the world. Eiseley is content, however; he has had his revelation:

> " . . . to me the mist had come, and the mere chance of two lifted sunlit ears at morning. I knew at last why the man on the bed had smiled finally before he dropped his hands. He, too, had worked around to the front of things in his death agony. The hands were playthings and had to be cast aside at last like a little cherished toy. *There was meaning and there was not meaning, and therein lay the agony.*"
>
> (ST 64; emphasis added)

As sixty-year-old men, Eiseley, and his dying father, had discovered that "[t]he meaning was all in the beginning, as though time was awry" and that "[i]t was a little beautiful meaning that did not stay"(ST 64-65). Either meaning attenuates with life, or humans move farther away from recognizing it. Eiseley concludes that "the old man on the hospital bed had traveled briefly towards [this

revelation] through the dark at the end of the universe" and had learned that "something in the desperate nature of the world . . . had to be reversed" but had been too weak to tell him (ST 65).

Forty years later, the groping fog of the imagination had, as Wordsworth described it, risen from the mind's abyss to enwrap the solitary traveler like a mist, and in it Eiseley found his miracle--"very small, as is the way of great things." Permitted as he sees it to "correct time's arrow" for a space of five minutes, he calls on others also to "run the arrow backward": "Doubtless it is impossible in the physical world, but in the memory and the will man might achieve the deed if he would try" (ST 65). In a rare moment of humor, the scientist feels unabashed triumph in his earned miracle:

> For just a moment I held the universe at bay by the simple expedient of sitting on my haunches before a fox den and tumbling about with a chicken bone. It is the gravest, most meaningful act I shall ever accomplish, but, as Thoreau once remarked of some peculiar errand of his own, there is no use reporting it to the Royal Society. (ST 65)

Eiseley's search for meaning and miracle is religious in the same sense that Wilbur finds poetry to be "essentially religious"--because it asserts the relevance of all things to each other. In his essay on "The Innocent Fox" Eiseley finds connections among his own restless longing, artificial lightning bolts, a phantom dog, the ribs of a shattered boat, his dying father's fascination with his hands, and a playful fox cub. Auden, who called Eiseley "a deeply compassionate

man" and a man "unusually well trained in the habit of prayer . . . the habit of listening," considered that the scientist had resolved two conflicting human impulses in his episode with the fox cub: "We oscillate between wishing we were unreflective animals and wishing we were disembodied spirits, for in either case we should not be problematic to ourselves" (Introduction 21-22). One solution to this ambiguity is laughter. On this occasion, the melancholic scientist/essayist resolved the conflict between flesh and spirit by playing with a fox cub. He solved one of nature's hieroglyphs. Through imagination, memory, and will "man might achieve the deed if he would try."

"On the Marginal Way": "May that vast motive wash and wash our own"

In an essay called "Paw Marks and Buried Towns," Eiseley writes of the need to know the past and understand our connections to it so that we may learn tolerance:

> We in the modern world have turned more stones, listened to more buried voices, than any culture before us. There should be a kind of pity that comes with time when one grows truly conscious and looks behind as well as forward, for nothing is more brutally savage than the man who is not aware he is a shadow. Nothing is more real than the real; and that is why it is well for men to hurt themselves with the past--it is one road to tolerance. (NC 85).

In his poem "On the Marginal Way," Wilbur remembers the past and examples of what Eiseley calls man's "disruptive malice": "It is as though we carried with us from some dark tree in a vanished forest, an insatiable thirst for cruelty" (NC 85). Wilbur hurts himself with the past so that the future may be healed.

Wilbur might have chosen as an epigraph for his poem "On the Marginal Way" a line from Eiseley's The Invisible Pyramid: ' . . . when the light changes all is changed, including life" (IP 127). Eiseley speaks of not just the light outside but "the golden light that changes in the head of man . . . [and] cries to memory out of vanished worlds, the leaf-fall light of the earth's eternally changing theatre" (IP 128). As he looks at the rock formations "On the Marginal Way,"[20] the poet is reminded of events of recent human history in a compressed geology of the imagination, succeeding eras evoked by the changing light which suffuses the rubble of "strange rock." When seen as "sleek, fluent, and taffy-pale," the rocks are likened to "That catch of bodies on the sand, that strew / Of rondure, crease, and orifice, / Lap, flank and knee"--the "too abundant view" witnessed by Victorian missionary George Borrow of "A hundred women basking in the raw" on a beach in Spain. The light varies and the rocks alter from "sleek, fluent, and taffy-pale to flushed rose and "the melting shape of bodies fallen anyhow"--"a Gericault of blood and rape":[21]

> Some desert town despoiled, some caravan
> Pillaged, its people murdered to a man,

> And those who murdered them
> Galloping off, a rumpling line of dust
> Like the wave's white withdrawing hem.
> (Poems 120)

The scene grows even worse when "greyed / By a swift cloud that drags a carrion shade." Wilbur describes "the vision of a colder lust" in which the rocks become bodies lying in a "death too dead to look asleep." In the grey light they resemble the "[p]oor slaty flesh abandoned in a heap" like "Auschwitz' final kill."

Burdened by the horror of his vision, the poet explains that "It is not tricks of sense"--the variations in color as the sunlight change and clouds move--"Which distracts / Least fancies into violence." The troubling comes from within; it is "the time's fright within me" which changes the beach rubbled with strange rock to scenes, unwillingly remembered, of communal brutality. What Wilbur means by the "time's fright" is indicated in the penultimate stanza: "high above the shore / On someone's porch, spread wings of newsprint flap / The tidings of some dirty war"--news of Vietnam specifically but also of any "dirty war." Shuddering from a imagination contaminated by a violent world, the poet withdraws--"my thought takes cover in the facts"--into the terms of geology (just as in "In the Field" the mind tried to take cover in the details of astronomy). He muses on the origins of the rocky beach:

> " . . . how the bed
> Of layered rock two miles above my head

Hove ages up and broke
Soundless asunder, when the shrinking skin
Of Earth, blacked out by steam and smoke,
Gave passage to the muddled fire within,
Its crannies flooding with a sweat of quartz,
And lathered magmas out of deep retorts

Welled up, as here, to fill
With tumbled rockmeal, stone-fume, lithic spray,
The dike's brief chasm and the sill.
(Poems 121).

This natural geologic violence continues in a slower, subtler way in the form of weathering: "By sanding winds and water, scuffed and brayed / By the slow glacier's heel."

Actually, the poet's escape into fact has led him into metaphor --a natural, external equivalent for the internal chaos of the human species. The human imagination in its power and its violent potential mimics the creative disruptive forces which have shaped and continue to shape the earth. Humankind, too, has "the muddled fire within" which erupts in lathered magmas and sweats of quartz--and scenes of blood and rape and mass exterminations. How then can the poet, in the presence of remembered horror and present carnage, declare "It is a perfect day"? Is it sufficient that "the waters clap / Their hands and kindle, and the gull in flight / Loses himself at moments, white in white"? The final stanza is puzzling in its assurance:

And like a breaking thought
Joy for a moment floods into the mind,
Blurting that all things shall be brought
To the full state and stature of their kind,
By what has found the manhood of the stone.
May that vast motive wash and wash our own.
(Poems 122).

One is reminded of the assurances of Julian of Norwich that "All shall be well and all manner of things shall be well." The power which will bring all things "[t]o the full state and stature of their kind is an ambiguous "what"--"By what has found the manhood of this stone." What indeed has found the manhood of the stone? Is it the poet's imagination that has seen life and death among the rocks? Or, is it the shaping force-"that vast motive"--which set into being the processes that created both the rock formations and the human mind which could then recreate the rocks imaginatively? Presuming a "vast motive" behind creation suggests faith in an intentionality that has awareness, concern, and power to effect some cosmic plan. The dramatic changes of scene as the light changes also suggest the power of the imagination to make the world; the world becomes for us what our inner light imagines.

The first line of "On the Marginal Way"--"Another cove of shale"--conveys redundancy, repetition; nature's reiteration of coves of shale sets the mood of recurrence, of "*de ja vue* all over again" in which scenes of dehumanization and violence are repeated in history and in memory. The poem works as a descent of the imagination into the hells of human making. In the first imagining of lust,

Borrow's too-much-of-a-good-thing glimpse of "rondure, crease and orifice" objectifies and depersonalizes the female form into parts trapped in a demeaning and powerless state, "in the raw." With the second scene change, the imagination steps deeper into the inferno to the Gericault-like scene of rape and murder. The third scene images a far "colder lust": the poor slaty flesh is destroyed before it dies and its bed is a mass grave. No one could think to put the consoling epitaph "Just asleep" over the graves of the victims of Auschwitz.

The imagination which conjures up these scenes of distaste progressing to revulsion and horror is redeemed with the last change of light. The sea is "[t]ransfigured by the sun's return." Previous emphasis on the alterations of light provoking changes of imagined setting allow the transformation by the return of sunlight to the rubbled beach. But more than a simple change of mood is implied. Awed and reverent before the fact of "tumbled rockmeal, stone-fume, lithic spray," the speaker sees the stones recline and burn "[c]omely as Eve and Adam." Suddenly the world returns to innocence and among "the bright boulders," "three girls lie golden in the lee / Of a great arm or thigh." The guilty sea of earlier metaphors is also transfigured by the light: The caravan murderers galloped off "a rumpling line of dust / Like the wave's white, withdrawing hem." Auschwitz' final kill were bulldozed into a common grave "like sea-rocks buried by a wave." With the sun's return the transfigured waters "clap their hands and kindle" and

become the element of celebration--"like a breaking thought / joy . . . floods into the mind."

> Though, high above the shore
> On someone's porch, spread wings of newsprint flap
> The tidings of some dirty war,
> It is a perfect day: the waters clap
> Their hands and kindle, and the gull in flight
> Loses himself at moments, white in white,
>
> And like a breaking thought
> Joy for a moment floods into the mind,
> Blurting that all things shall be brought
> To the full state and stature of their kind,
> By what has found the manhood of this stone.
> May that vast motive wash and wash our own. (Poems 122)

The poet had insisted that it was "the time's fright within me" which distracted "[l]east fancies into violence," but the present time only caused him to remember earlier times fraught with their own terrors. Bitter cruelty has been a recurrent theme in the history of "the sixth and human day." The violence of the human imagination expressed in acts of savagery and in their haunting remembrance contrasts to the forces of creation which cast up innocent rock shapes, playfully arranged in configurations suggestive to the perceiver of human forms--"found the manhood of this stone." The poet prays, "May that vast motive wash and wash our own." Repetition of "wash and wash" performs the sound and action of waves rising and breaking over rocks. Wash also suggests the Judeo-Christian redemption: " . . . though your sins be as scarlet, they shall

be white as snow; though they be red like crimson, they shall be as wool" (Isaiah 1: 18). The hope for a better human day is in remembering and being, as Eiseley said, "hurt by the past." Human imaginations planned the murderous plundering of a caravan, the death camp at Auschwitz, and every "dirty war," but human imaginations also remember these acts and record them with anguish.

Michelson finds it easier to say what "the final, difficult stanza" of "On the Marginal Way" does not mean than what it does mean. Warning that making too much of the religious vocabulary of Wilbur's poems can unfairly reduce and confine the achievement and "portray his vision as more bounded and safe than it is," Michelson writes: "The baptism-like end of 'On the Marginal Way' might make the yearned-for redemption at the ending eerily familiar or consoling and 'Christian-like,' but finally it does not seem Christian in substance, and it is not affirmed in any final gesture of faith" (99). Michelson too quickly disavows a Chrisitian tone to a poem written by a poet who declares himself to be a Christian. Besides those Michelson mentions, there are several other Christian allusions within the poem. The "sixth and human day" and "Eve and Adam" echo the Genesis stories of creation. "Transfigured by the sun's return" has contained within it a religious pun--"transfigured by the *Son's* return," suggesting the Christian redemption to be brought to perfection upon the Second Coming. The evil bird of war--"spread wings of newsprint flap / The tidings of some dirty war"--is

counterpointed by an emblem suggestive of the Holy Spirit--"the gull in flight / Loses himself at moments, white in white." These Christian symbols suggest that the human imagination is capable of not only horrors but also of redemptive myth.

An interpretation which neither precludes nor requires the strictly Christian resolution is possible. Perhaps the answer to the poem is in its creation, in the power of the imagination. The events the poet recounts tell of the savage, dark side of human creativity, but the mind which creates the poem out of these cruel memories longs for a redeemed imagination that delights in the creation rather than destroys it. The acts of remembering and of making a poem out of historical terrors render to the past the only recompense possible --attention and sympathy. As the walker in "Walking to Sleep" must stare his brother down by lifting his gaze to look full in the face at the man on the gallows whose eye sockets have been pecked hollow by crows, the poet in "On the Marginal Way" must look full at the horrors at the past. An imagination that remembers and is hurt by the past and pays attention to the present has an opportunity for redemption in the present. What Wilbur offers is an act of the imagination which is a "brilliant negative" to the brutalities past and present and a strong affirmation of the "vast motive" that may "wash and wash our own." This answer is neither facile nor ineffective; it requires strenuous, continual, and imaginative commitment by the poet and by those who would to share his vision.

Payne says that in "On the Marginal Way," "the world acts as a redemptive force which grounds the mind, saving it from the terrors of its own imaginings" (192). Wilbur sets against the man-made horrors what he sees as the invincible beauty and goodness of creation. Wilbur places against those horrors his faith that the universe is full of glorious energy which takes pattern and shape despite evil and disorder and his conviction that the ultimate character of things is "comely and good." Wilbur has a kind of humble conviction that humankind does not have the last word in the nature of things. What Wilbur says of landscape painting in "Regarding Places" he would probably also find true of poetry:

> . . . for landscape painting to attempt its fullest possibilities in any period, there must be some painters who embody the attitude of V. D. Perrine, who said of rocks, trees, and rivers that they were 'symbols of a great Universal Power . . . which makes and shapes tree and rock and river equally with myself.' Provided the holder of such a view can also paint, he may help to redeem us from indifference or subjective deformity by his achievements of place--a place being a fusion of human and natural order, and a peculiar window on the whole. (159-160)

"On the Marginal Way" offers "a peculiar window on the whole" by juxtaposing the horror of human disorder against the beauty of natural order.

"The Star Thrower": "The stars throw well. One can help them."

In "The Star Thrower," Eiseley describes his "fugitive glimpse" of "what man may be." As in "The Innocent Fox," his moment of insight comes "along an endless wave-beaten coast at dawn": "As always, there is this apparent break, this rift in nature, before the insight comes. The terrible question has to translate itself into an even more terrifying freedom" (UU 67). Eiseley arrives on the shores of Costabel--"[p]erhaps all men are destined at some time to arrive there as I did"--as a desiccated, withered Giacometti figure seeking meaning in a place where nothing makes sense, where a woman in a dingy restuarant could be heard saying--as if in a disconnected bit of conversation from "The Wasteland"--"'My father reads a goose bone for the weather'" (68). Eiseley himself is the "eye glaring in the skull" mentioned in the epigraph from Seccho ("Who is the man walking in the Way? / An eye glaring in the skull"):

> I was the skull. I was the inhumanly stripped skeleton without voice, without hope, wandering alone upon the shores of the world. I was devoid of pity, because pity implies hope. There was, in this dessicated skull, only an eye like a pharos light, a beacon, a search beam revolving endlessly in sunless noonday or black night. Ideas like swarms of insects rose to the beam, but the light consumed them. (68)

This man reduced to a "skull of emptiness" with its "revolving light without pity" conceals himself with fisherman's cap and sunglasses and so manages to look like everyone else on the beach.

This pitiless seeker has brought his emptiness to a place equally without pity. The beaches of Costabel are scenes of carnage --nature-made and man-made destruction, a damp wasteland "littered with the debris of life."

> Shells are cast up in windrows; a hermit crab, fumbling for a new home in the depths, is tossed naked ashore, where the waiting gulls cut him to pieces. Along the strip of wet sand that marks the ebbing and flowing of the tide death walks hugely and in many forms. Even the torn fragments of green sponge yield bits of scrambling life striving to return to the great mother that has nourished and protected them. (UU 69)

But the sea-mother rejects her offspring, leaving them to struggle silently and unavailingly in the surf. Trapped on the shore, the breathing pores of the starfish fill with sand and their mucilaginous bodies dry and shrivel in the sun. "The seabeach and its endless war are soundless. Nothing screams but the gulls" (UU 69). Yet, not only nature is cruel. In the tourist season and after fierce storms, "one can observe another vulturine activity." In a kind of greedy, competitive madness, professional shellers scurry along the beaches during the night hours before dawn. Using electric torches, they gather the storm-stranded starfish and mollusks. The living shells "will be slowly cooked and dissolved in the outdoor kettles provided by the resort hotels for the cleaning of specimens" (UU 70). Eiseley says that it was "[f]ollowing one such episode" that he met the star thrower.

Sleepless, he had walked out into the pre-dawn, post-storm world where the lights of shell hunters flashed on a beach torn and ragged, blown sand powdering the air. It was a world of natural destruction busy with those who preyed on the helplessly stranded. The detritus of the sea included "upended timbers, conch shells, sea wrack wrenched from the far-out kelp forests," a pink-clawed crab in a cup of green sponge, and "[l]ong-limbed starfish . . . strewn everywhere, as though the night sky had showered down" (UU 70). His pharos, searching eye is met by the sand-bleared but beautiful dark-lensed eyes of a dead octopus. Walking on past the shellers to a steeper part of the shore where "the sound of the sea [grew] heavier and more menacing," Eiseley rounded a point hoping for refuge from the wind. Behind him in the eastern sky the sun was "an ominous red glare amidst the tumbling blackness of the clouds," but before him shimmered "a gigantic rainbow of incredible perfection." At the foot of the rainbow Eiseley saw a human figure, oblivious, gazing at something in the sand. Reaching the figure, Eiseley watches as the stranger gently takes a living starfish struggling against suffocation in a pool of sand and silt and hurls it over his head far out into the sea. In answer to Eiseley's question, the star thrower tells him that he collects only the living and "'[o]nly like this'": "'The stars throw well. One can help them'" (UU 72). Responding to the unspoken question that kindles in the stranger's eyes, Eiseley declares that he does not collect: "'Neither the living

nor the dead. I gave it up a long time ago. Death is the only successful collector'" (UU 72).

Looking back as he walks on, Eiseley sees the star thrower continue his quixotic effort against death: "For a moment, in the changing light, the sower appeared magnified, as though casting larger stars upon some greater sea. He had, at any rate, the posture of a god" (UU 72). But the cold, world-shriveling eye in the skull reasserts dominance, and Eiseley reminds himself that the star thrower is only a man and that "death is running more fleet than he along every seabeach in the world" (UU 72). As he returns to his hotel past the starfish gatherers and the shell collectors, Eiseley chooses "to look full at the steaming kettles in which beautiful voiceless things were being boiled alive" (UU 73). He concludes that Costabel is one of those place set apart for shipwreck and that he has unerringly made his way there.

In this four-part essay, Eiseley uses part one to introduce the wasteland of Costabel and the vaster wasteland of his interior being. Peter Heidtmann describes Costabel as "a region of the spirit externalized for the sake of narrative" (UU 83). In a letter to W. H. Frey, Eiseley admitted that he picked up the name Costabel "by listening to a seashell many years ago somewhere on what has been called the coast of illusion" (qtd. in Angyal 81). Andrew Angyal notes that Eiseley was in the habit of heightening or altering or even inventing the details of his "numinous encounters" with mysterious others like the star thrower: "Clearly, these autobiographical

passages, which seem so disingenuous and candid, are actually highly contrived literary efforts" (81). These encounters contain imaginative truths not inhibited by or contained in the mere facts. Eiseley's descriptions of himself as a pitiless wanderer absorbed in his own aridity and anguish are truths of the spirit, and the place Costabel and the star thrower are truths of the imagination. Together, parts one and four present the mythic and memorable expressions of desolation and hope and the choice for life that becomes his paradigm for moral action. Parts two and three are the sections where Eiseley passes through the dark night of his soul and earns the right to make his myth. In these central sections, he moves from passages describing events and anguish of his actual boyhood on the western plains to discussions of science and evolution and man's place in the cosmos. The shifts between subject matter are, as Angyal suggests, carefully wrought and flow naturally one into the other, building toward the revelation that finally comes.

At the beginning of part two, Eiseley, having vividly created the charnel house of Costabel, asserts a connection between the earth's terrain and "our human outlook." He suggests that unlike the born plains-dweller who can reasonably expect one step to lead to another, the mountaineer may discover that one step leads to another only "by a desperate leap over a chasm or by an even more hesitant tiptoeing across precarious snow bridges" (UU 73). He finds in these opposed landscapes an "analogue to the mind of man." We abandoned "the protected instinctive life of nature" for "an

adventurous existence amidst the crater lands and ice fields of self-generated ideas" (UU 74). Now, on "the level plains of science," we seem to have stepped out of illusions into a world of "imposed order" and "the enormous vistas of past and future time." Little or nothing remains unmeasured except the interior terrain--the mind of man.

Remembering the flat, predictable prairies of his youth, Eiseley acknowledges the "one contingent aspect of that landscape"--twisters, cyclonic funnels that could tear across the land with devasting fury or could manifest as whimsical "dust devils," dancing and spinning gently on hot days. These twisters and dust devils were "the trickster part of an otherwise pedestrian landscape" (UU 75). Unlike more prudent neighbors, Eiseley's parents never constructed a storm cellar. Buffeted by the trickster element in nature, his father and mother rejected planning: "Unconsciously, they had arived at the philosophy that foresight merely invited the attention of some baleful intelligence that despised and persecuted the calculating planner" (UU 75). Eventually, Eiseley came to recognize in the human mind a "maleficent primordial power" akin to "the wandering dust storms of the exterior world" (UU 75). This hidden dualism of the inner world that mimics the outer is called good and evil by religion, form versus chaos by science.

However, since the dominance of the theory of evolution, even form seems an unstable illusion: "Our apparent shapes . . . . waver and dissolve into the unexpected" (UU 76).

> We are rag dolls made out of many ages and skins, changelings who have slept in wood nests or hissed in the uncouth guise of waddling amphibians. We have played such roles for infinitely longer ages than we have been men. Our identity is a dream. We are process, not reality, for reality is an illusion of the daylight--the light of our particular day. (UU 76)

Even so, buried within the human psyche, contained in the shell of our wavering forms, is an injunction, "a plea to wait upon some transcendent lesson preparing in the mind itself" (UU 76).

Yet, Eiseley finds the "facts we face . . . terrifyingly arrayed against us" (UU 76-77). He likens this threat to the trickster he saw perform at the devout ritual of a primitive people. The trickster mimicked in silent, carefully choreographed derision behind the back of the officiating priest. In modern, scientific times, contingency, the indeterminable, dances at our backs. Eiseley concludes that the primitives had found a way to acknowledge the "dark message" of the cosmos: "Perhaps the primitives were wiser in the ways of the trickster universe than ourselves; perhaps they knew, as we do not, how to ground or make endurable the lightning" (UU 77). At this point, Eiseley says he can understand why a modern primitive (the father of the woman overheard in the dingy restaurant in part one) "reads goose bones for the weather of his soul" (UU 77). He himself is pursued and will be pursued till his death by a shadow, mocking and posturing behind him.

Eiseley concludes that folklore has long recognized that "[i]nstability lies at the heart of the world" (UU 78).

> With uncanny foresight folklore has long toyed symbolically with what the nineteenth century was to proclaim a reality, namely, that form is an illusion of the time dimension, that the magic flight of the pursued hero or heroine through frogskin and wolf coat has been, and will continue to be, the flight of all men. (UU 78)

This power to change can be either creative or destructive and must be counterbalanced by "an equal impulse toward specificity" to avoid the "formless and inchoate void of the possible" (UU 78). Each form, individual or species, clings to its identity and "strives to contain the creative and abolishing maelstrom that pours unseen through generations" (UU 78). Though life struggles "to maintain every manifestation, every individuality, that exists . . . . life always fails, but the amorphous hurrying stream is held and diverted into new organic vessels in which form persists, though the form may not be that of yesterday" (UU 78-79). Life, like the galaxies, rushes from some unknown center to the periphery of the ever-retreating edges of possibility:

> As the spinning galactic clouds hurl stars and worlds across the night, so life, equally impelled by the centrifugal powers lurking in the germ cell, scatters the splintered radiance of consciousness and sends it prowling and contending through the thickets of the world. (UU 79)

The pharos eye of the alienated man upon a bed in Costabel has discovered this "devious, tattered way" of life which continuously

fails to perfect or maintain a single form but also continuously creates out of its failure the possibility of new forms.

Eiseley, the eye within the skull, also becomes aware that he is being searched out by another eye --perhaps an exteriorized, haunting projection from his own mind. It, too, transforms from "something glaucous and blind beneath a web of clinging algae" to "the sand-smeared eye of the dead cephalopod . . . encountered on the beach" to the childhood memory of "the beaten, bloodshoot eye of an animal" to "an eye that seemed torn from a photograph" (UU 79-80). Eiseley recognizes the last, the eye that looked through him "as though it had already raced in vision up to the steep edge of nothingness and absorbed whatever terror lay in that abyss," as his mother's. This revelation ends part two.

At the beginning of part three, Eiseley retreats (as though in dread of the encounter with his mother) from the personal after linking the question as to why a man who pursues knowledge should be left with "a revolving search beam in the head whose light falls only upon disaster or the flotsam of the shore" to the question as to why ships should seek the coasts that invite shipwreck. He describes a world changed for all humankind, from a supernatural world in which prophecy was sought in bones ("quaint almanacs of nature's intent") and hunters apologized to the souls of the animals they hunted to a natural/scientific world, "a place of homeless frontiers and precipitous edges" and "terrible freedoms" where tomorrow was not manageable and where tools revenged themselves on their

creators. Science could create tools out of nature but could not control their ambivalence nor "that urge for tampering and dissolution," "that subconscious poltergeist" which the human inventors had inherited from primate ancestors. In the enchanted forest of the supernatural, pre-scientific world, "we had been safe . . . because of our weakness"--what we did not know and could not alter. "When the powers of that gloomy region were given to us, immediately, as in a witch's house, things began to fly about unbidden" (UU 81). Blinding illuminations were accompanied by huge shadows. Not only priests, but scientists had the trickster dancing malignly at their backs.

Bacon, Darwin, Einstein, and Freud were "carriers of the light," but they also cast unexpected shadows. What began as a retreat of darkness "presaged the emergence of an entirely new and less tangible terror" (UU 82). Finite in power himself, man had released unlimited natural forces: "They were the irrevocable monsters conjured up by a completely amateur sorcerer" (UU 82-83). Eiseley lists the nineteenth-century discoveries "that now threaten to induce disaster": 1) the discovery of the interlinked and evolving web of life; 2) Darwin's description of the struggle for existence which he saw as purely selfish--one organism never acting with purely disinterested concern for another--ironically companioned by his comforting assumption that man, unlike other living species, had a future "'of inappreciable length'"; and 3) Freud's revelation that the "secure, stable, and sunlit province of the mind" was in reality a

place of contending furies. "Ghostly tranformations, flitting night shadows, misshapen changelings existed there, as real as anything that haunted the natural universe of Darwin" (UU 84). Eiseley recognizes that it was the contending furies in his own mind that brought him as the destruction-seeking skull and eye to Costabel.

Haunted by the agonized eye in the remembered photograph, his mother's eye, Eiseley recalls sorting through her belongings after her death and the years of emotional and physical estrangement that preceded it. In the attic he had found his old satchel containing a jackknife, a "rat" of hair fashionable in the early part of the century, "two incredibly pointed slippers" intended for a formal ball to which his mother would never have been invited, and a packet of studio portraits bound in rotted string. Also in the satchel were two separate notes, each declaring: "'This satchel belongs to my son, Loren Eiseley'" (UU 85). He recognizes the town name stamped on the back of a photograph "Dyersville, Iowa" as his mother's hometown and for the first time thinks of it as "the dire place." At the edge of the Dyersville photograph stand two young girls, the younger clinging reluctantly to the older. Looking at the picture of the six-year-old girl, Eiseley winces at the knowledge that "[h]ere it began, her pain and mine":

> The eyes in the photograph were already remote and shadowed by some inner turmoil. The poise of the body was already that of one miserably departing the peripheries of the human estate. The gaze was mutely clairvoyant and lonely. It

> was the gaze of a child who knew unbearable difference and impending isolation.
>
> . . . The last message had come from Dyersville: 'my son.' The child in the photograph had survived to be an ill-taught prairie artist. She had been deaf. All her life she had walked the precipice of mental breakdown. Here on this faded porch it had begun--the long crucifixion of life. (UU 86)

This man who had himself been a lonely, frightened child--shut out of normal expressions of maternal affection, terrified by his mother's outbursts, and ashamed of "the gross gesticulations" that passed as communications between them--finally recognized his mother as the tormented child in the photograph.

Feeling the burden of her confronting presence, Eiseley remembers the Biblical injunction to "[l]ove not the world, neither the things that are in the world." With her torn eye upon him, Eiseley whispers to "a waiting presence in the empty room":

> 'But I *do* love the world . . . . I love its small ones, the things beaten in the strangling surf, the bird, singing, which flies and falls and is not seen again. . . . I love the lost ones, the failures of the world.' (UU 86)

With this confession, Eiseley feels as though he has renounced his scientific heritage,[21] but with it the "merciless beam" no longer traverses his skull and with it the torn, sad eye of his mother surveys him one last time and is gone. With his confession, two rifts, one universal and one personal, close. Imaginatively and compassionately, he has reached across time and long-harbored,

corrosive anger and rejection to the suffering child who had been his mother. He recognizes in the erratic deaf woman who had danced like a malevolent shadow at his back--darkening his life with her rage and selfishness and bizarre behavior--the loneliness, isolation, failed expectations, and mental instability of another human being who suffered. Though she had been as destructive to her child as the violent, storm-tossed sea at Costabel which had littered the beach with her castoff progeny, Eiseley was finally able to hear his mother's last message left in a satchel in a dusty attic--"my son . . . my son." Tacitly he acknowledges her as one of the beaten things, one of the lost ones and failures of the world. His understanding and implied forgiveness free him of the trickster at his back and the "dark impulse toward destruction" lurking in the subconscious that had brought to this place demanding shipwreck.

The second rift--"one of the last great rifts in nature"--becomes "a joining." By "the expression of love projected beyond the species boundary by a creature born of Darwinian struggle," the star thrower annihilated Darwin's theory of the purely self-interested fight for existence and reasserted "the human right to define his own frontier" (UU 87). Eiseley concludes that "through war and famine and death, a sparse mercy had persisted, like a mutation whose time had not yet come" (UU 87). Out of that "sparse mercy," a creature born of the contentious struggle for survival had "stretched out its hand in pity." With the act of throwing living stars back into the sea, the star thrower had challenged the pre-existing boundaries: "He had moved

to the utmost edge of natural being, if not across its boundaries. It was as though at some point the supernatural had touched hesitantly, for an instant, upon the natural" (UU 87).

Nature had created a projection out of herself: "Out of the depths of a seemingly empty universe had grown an eye . . ." (UU 87). Looking out upon itself and searching, this eye had assumed "the shape of man" and "had ascended like a vaporous emanation from the depths of night." Thus nature had found a way to confront and observe herself:

> The nothing had miraculously gazed upon the nothing and was not content. It was an intrusion into, or a projection out of, nature for which no precedent existed. The act was, in short, an assertion of value arisen from the domain of absolute zero. A little whirlwind of commingling molecules had succeeded in confronting its own universe. (UU 87)

Man had arisen as mysteriously as one of the dust devils or twisters which created itself out of the sky and earth of the prairie. Nature chose to be conscious of herself and out of desolation had come mystery: "Some ancient, inexhaustible, and patient intelligence, lying dispersed in the planetary fields of force or amidst the inconceivable cold of interstellar space, had chosen to endow its desolation with an apparition as mysterious as itself" (UU 88). Thus, unrestrained by "what is vulgarly called the natural," man is fated to be nature's consciousness--an "ever recurrent, reproachful Eye floating upon

night and solitude," telling nature of her own existence. "[T]hought mediated by the eye is one of nature's infinite disguises" (UU 88).

As Eiseley sees it, man, born out of the the desolation of the universe, is inevitably condemned to "endless disillusionment." Yet out of that condemnation comes an incredible liberty not extended to nature's other manifestations that are not burdened with a higher consciousness: " . . . out of such desolation emerges the awesome freedom to choose--to choose beyond the narrowly circumscribed circle that delimits the animal being" (UU 88). In that choosing, the struggle between chaos and order are re-enacted and "contend for the destiny of a world."

Having gone through the dark night of his soul in parts two and three of "The Star Thrower" and having made the choice to reach across the gulf of years and estrangement to his dead mother, Eiseley is ready in part four to align himself visibly with the star thrower. "In the sweet rain-swept morning," he finds the thrower again standing at the foot of "that great many-hued rainbow." Silently, Eiseley bends beside him to pick up a starfish and spin it far out to sea. He tells the star thrower, "'I understand . . . Call me another thrower'" (UU 89). Knowing that they are the first of a breed, that other star throwers will come after, Eiseley feels himself and the original thrower "part of the rainbow--an unexplained projection of the natural" (UU 89). He could feel "the drawing of a circle in men's minds" and saw the rainbow as "a visible model of something

toward which man's mind had striven, the circle of perfection" (UU 89).

Having found some degree of reconciliation with his personal past and a new hope in the present, Eiseley is able to make other connections. He is able to imagine and then identify with some giant Star Thrower on the rim of space hurling real stars: "I could feel the movement in my body. It was like a sowing--the sowing of life on an infinitely gigantic scale" (UU 90). He can believe that because he and the thrower standing in the rainbow are flinging their living stars against "the insatiable waters of death" that some Thrower "far off, across bottomless abysses" hurls another world more joyfully. Eiseley can think of the Thrower in human terms--lonely, with the end toward which he labors also hidden. Eiseley, this melancholic man, could throw in "a frenzy of joy," but knowing that it is men as well as starfish he is trying to save, he sets himself to throw deliberately and well.

Eiseley also experiences "a great atavistic surge of feeling," a spiritual kinship with the ice age hunters whose rituals had included "making obeisance to the souls of the hunted." He feels the return of a prehistoric memory: "the perfect circle of compassion from life to death and back again to life--the completion of the rainbow of existence" (UU 90). He has the sense of having reached again "the last shore of an invisible island" that the primitives of the ice age had always known: "They had sensed intuitively that man cannot exist spiritually without life, his brother, even if he slays" (UU 91). Eiseley

is able to fling himself "as forfeit . . . into some unknown dimension of existence" because nature had set the example, evolving in the star thrower a creature who "loved not man, but life":

> In the night the gas flames under the shelling kettles would continue to glow. I set my clock accordingly. Tomorrow I would walk in the storm. I would walk against the shell collectors and the flames. I would walk remembering Bacon's forgotten words 'for the uses of life.' I would walk with the knowledge of the discontinuities of the unexpected universe. I would walk knowing of the rift revealed by the thrower, a hint that there looms, inexplicably, in nature something above the role men give her. I knew it from the man at the foot of the rainbow, the starfish thrower on the beaches of Costabel.
>
> (UU 92)

He chose to walk like his imagined cosmic Star Thrower, in desolation but not defeat.

Eiseley knew that "[m]en have long memories when the memories are clothed in myth" (NC 28), and his essay "The Star Thrower" has the beauty and power of myth. Its imaginative evocation of life-affirming good gets its power, however, not from its framing tale of the mythic figure engaged in an apocalyptic gesture of world-sowing but from the dark night of soul of the interior tale in which Eiseley confronts the difficulty of love and forgiveness. Without the persona's confrontation with his own inner desolation and rage, the tale of the Star Thrower would be a simple morality fable, an exemplum of limited effect. What Eiseley does, in fact, is retell The Rime of the Ancient Mariner. The Mariner is not freed

from his guilt, isolation, and despair until he reaches across the barrier of form to see their beauty and bless the water-snakes. Looking at the "[b]lue, glossy green, and velvet black" of the coiling "happy living things," the Mariner felt a spring of love gush from his heart "[a]nd I blessed them unaware" (Coleridge 409). Eiseley had to come to realize that loving "the things beaten in the strangling surf . . . the lost ones, the failures of the world" meant that he would also have to love and forgive his mother. As he saved stranded starfish, Eiseley also reached imaginatively into the past--beyond his own suffering child-self to the suffering child who was his mother.

It is hard to create an acceptable myth in an age that knows so much that the good becomes ambiguous. As symbolism and as a direct act of care for a fellow living thing, throwing stranded starfish back into the sea would see unimpeachable. However, no good deed is without its consequences. In his review of The Unexpected Universe at the time of its publication, William Caldwell pointed out that starfish are no sea-innocents but voracious marauders of beds of shellfish. Caldwell termed the starfish "a murderous monster" and said that "one starfish can clean out a bed of clam or oysters in a week" (qtd. in Heidtmann 83). Thus, saving starfish condemns large numbers of the species on which they feed. Caldwell therefore found it "disconcerting to hear a scientist giving himself virtuous airs for engaging in such an irresponsible caper" as interfering on behalf of one species without regard for the ecological consequences. One might also point out that though Eiseley piously sets himself apart

from the shellers whom he portrays as heartless collectors preying on stranded shellfish, a quick death in a pot for mollusks and echinoderms is probably more merciful than slowly shriveling in the sun.

Eiseley succumbs at times to the malady that Maritain found afflicting a number of modern writers; he described it as "a weakening in the movement toward beauty, together with a weakening in the movement toward the work, or a kind of desertion of the work as master object to which the operative intellect is vowed." Instead, the writer--and this is Eiseley's greatest failing--becomes "more interested in constructing his own image as an example, for the generation to come, of a martyr imprinted on paper . . . " (Maritain 150). Eiseley often portrays his persona as a Saint Francis figure juxtaposed to some "other" who is uncaring or actively malign--like the would-be fox-killer he mentions in "The Innocent Fox"--and then self-righteously congratulates himself. In The Firmament of Time, Eiseley tells of a lake-edge encounter with a young muskrat that had not yet learned the survival skill of fearing humans. Coming very near the man, the muskrat rose out of a lake on which, later in the day, "young Apollos" and attractive girls would speed about in high-powered motorboats. Eiseley describes the muskrat as "an edge-of-the-world dweller, caught between a vanishing forest and a deep lake pre-empted by unpredictable machines full of chopping blades" (FOT 156). Piously, Eiseley warns "my muskrat" away with a few pebbles and then, as the animal

vanishes in an oncoming wave, walks away "obscurely pleased that darkness had not gained on life by any act of mine" (FOT 157). Yet what he had in fact done was to send the muskrat to shelter in a lake where he himself trying to swim would have been "gaily chopped to ribbons by teen-age youngsters whose eyes were always immutably fixed on the far horizons of space, or upon the dials which indicated the speed of their passing" (FOT154).

Near the end of The Firmament of Time, Eiseley describes another one of his "savings." In a remote desert area where rocks seemed to be the only thing alive, Eiseley encountered a bizarre phenomenon--so bizarre that the event seems highly unlikely. From the distance he sees what appears to be a stone trailing a rope rising and then falling back to the ground. As he comes nearer, Eiseley discovers a pheasant hen partially encoiled by a black snake. The bird tries vainly to fly, getting only a few feet off the ground before dropping back, battering the snake in the gravel. Eiseley presumes that the blacksnake had approached the bird's nest and been attacked and had managed to wrap a coil around the defending mother bird. Unable to stand "that ceaseless, bloody pounding in the gravel," Eiseley separated the two and carried the snake over the next ridge "where he could do no more damage" (FOT 175). Eiseley says that "[t]he bird had contended for birds against the oncoming future; the serpent writhing into the bunch grass had contended just as desperately for serpents" (175). Eiseley concludes that he had struggled "for a greater, more comprehensive version of myself"

(176). Eiseley's parable underestimates the attention of his reader. If, in fact, he has removed the snake to where it can do no harm, he has doomed it to starvation. The snake, like much of creation, must kill to live. Eiseley longs for a return to the Garden of Eden, a fantasy world where the lion and the lamb (or the snake and the pheasant) lie down together and the lamb does not get eaten. His impulse may be altruistic, but his zoology is bad.

His desperate need to put things right had its origin in his childhood. The image of Eiseley separating the blacksnake and the pheasant recalls a scene recounted in All the Strange Hours. As a frightened, anxious toddler, Eiseley rose from his bed and wordlessly approached his parents who had been arguing furiously and, taking their hands, silently pleaded with the them for peace. On that occasion, Eiseley says peace was briefly restored. His separating the snake and the bird, trying to save both, seems an older version of the child's actions--Eiseley trying to bring together his warring parents, trying to make an impossible peace. If the event actually occurred as Eiseley describes, it seems likely that neither the battered snake not the half-throttled pheasant would survive. And if they did, the snake would still have to eat some bird's eggs.

Knowledge of the interrelatedness of life makes for ambiguity. Outside of myths, no solution is without problems. Alfred North Whitehead expressed the painful truth that "all life is robbery." Nothing comes into being without feeding on or displacing other life. Perhaps that biological fact is the source of the concept of original

sin: to be alive is to be guilty. So far as we know, only we human beings feel the guilt and would somehow absolve ourselves. Throwing stranded starfish back into the sea is act of rebellion against the natural order, against the terrifying design of the universe that plants white spiders on white heal-alls to catch white moths and that teaches sphex wasps how to paralyze cicada so as to provide fresh, living meat for their larvae.

Both "The Star Thrower" and "The Innocent Fox" are stories excreted around a nidus of personal pain--"The Innocent Fox" around Eiseley's hurt that his dying father barely recognized him though he knew his older half-brother and "The Star Thrower" around the torment of his relationship with his difficult mother. Cast into a world where the earlier taxonomies of existence--religious, cultural, scientific--had dissociated, Eiseley developed a style that attempted to meld the disparities of the modern world and his own private pain into the cohesive web of his personal vision. To reassemble the shambles into some kind of coherence, Eiseley had to construct from the rubble of his own psychic life a persona, a mythic self, who could act as the bardic seer of a prophetic vision. According to Gerber and McFadden, Eiseley's belief in "the fleshly continuity of evolving life . . . . calls humanity to no less a task than redefining its relation to the entire nonhuman world." They see Eiseley "as the modern counterpart of St. Francis of Assisi, preaching the brotherhood of the species and the sacred primacy of created life" (63). Seen in the context of what Gerber and McFadden describe as Eiseley's call for "a

new ethic founded upon a new religious and ecological sensibility" (72), Darwin ironically becomes "the founder of the new faith" based on evolutionary relatedness (63), and Eiseley becomes his prophet.

CONCLUSION

Of the two antithetical impulses Richard Tarnas in The Passion of the Western Mind describes at work in the post-modern world--"one pressing for a radical deconstruction and unmasking . . . and the other for a radical integration and reconciliation"--Eiseley and Wilbur are driven by the latter. Operating implicitly on the Emersonian precept that "[t]ruth, and goodness, and beauty, are but different faces of the same All," Eiseley and Wilbur integrate and reconcile the scientific with the religious and the poetic in their writings.

At their best, neither Wilbur nor Eiseley hesitates "to risk / His dream-stuff in the fitting rooms of fact," but each discovers as William James observed that "truth and fact well up into our lives in ways that exceed verbal formulations." They both find as James found that "in the living act of perception always something . . . glimmers and twinkles and will not be caught . . . " (456-457). Both naturalist and poet have a profound sense of pervasive, alluring mystery behind existence--what Otto calls the "ineffable something that holds the mind," something which is intensely present but eludes apprehension. This mystery lures them to be seekers, pursuing understandings of the world--within and without--in all its complexity. They puzzle over the nature of mind and the meaning of time, and they struggle with the power and limitations of words as ways of knowing. The world's plenitude and marvel inspire what

Eliade calls an "unquenchable ontological thirst"; Wilbur says that "Joy's trick" is to supply us "with an ache / Nothing can satisfy."

Both Wilbur and Eiseley describe life as a perpetual reaching out beyond the boundaries of self, beyond the boundaries of what is known. Poetry makes possible what Maritain calls the "intercommunication between the inner being of things and the inner being of the human Self," so that self and thing interact in ways that remove the veneer of visibility, making things stand out in their "unconcealedness," thereby revealing both self and thing. Thus, the imagination can partly elude the trap of matter. Able to reach across space and through time, imagination explores the rubble of memory and creates in the "eternal, dangerous present" the substance out of which the future must be made. Accessing pre- or extra-linguistic knowledge and awareness, imagination can discover or create unity amid what seems only disparity and multiplicity. This imaginative power to bind things together in patterns that cohere replicates in miniature what Wilbur calls some cosmic "grand arcanum," some universal word that holds all that is and keeps creation "from foundering in points and waves."

In Beyond Belief, sociologist Robert Bellah writes of the need to develop an integrated view that brings all the powers of the mind to bear on understanding the nature of reality which he believes cannot be comprehended through any one facet of the human imagination:

> . . . in the fruitful interchange between social science and religion we may be seeing the beginnings of the reintegration

> of our culture, a new possibility of the unity of consciousness. If so, it will not be on the basis of any new orthodoxy, either religious or scientific. Such a new integration will be based on the rejection of all univocal understandings of reality, of all identifications of one conception of reality with reality itself. It will recognize the multiplicity of the human spirit, and the necessity to translate constantly between different scientific and imaginative vocabularies. It will recognize the human proclivity to fall comfortably into some single literal interpretation of the world and therefore the necessity to be continuously open to rebirth in a new heaven and a new earth. It will recognize that in both scientific and religious culture all we have finally are symbols, but that there is an enormous difference between the dead letter and the living word.
>
> (Bellah 246)

Man names and categorizes, but the wonder remains: " . . . we are stardust that somehow assembled itself first into life and finally into consciousness." For Eiseley, that evolution from inanimate dust to life to consciousness "implies strange forces in the universe that no amount of naming by man can make ordinary" (LN 106). Goethe, both poet and scientist, argued that understanding the phenomena would require an imagination of wholes rather than a reductionist's view of the constituent parts but that such a comprehensive vision would lead to new cognitive faculties, novel perceptions, and a seeing into the nature of things.

The "most enormous extension of which life is capable" and "the supreme epitome of reaching out" is the projection of self into other lives. This ability to honor reality and the wisdom and strength to reach across the barrier of form can come only after the struggle with something that Wilbur describes as "powerfully other."

If there is to be an "endurable future," Eiseley says it must come from such reaching out.

> If man is to seek happiness, he must grow outward into the world he has discovered. He must pass the borders of his own being. He must dream with the dreaming greatness of the vast multicolored shape of life itself, not of man, nor of serpents, but of that enormous whole that contains them, as it contains lover and the wandering stars and the enormous freedom to change. (LN 113)

Uncovering old wells may indeed reveal the something there is that doesn't love the sun, and crossing verges will eventually lead to "the pitchy whirl at the mind's end," but the adventure makes life "risk-hallowed."

Wilbur and Eiseley believe that the discoveries of meaning and beauty and natural law are not the imposition of human vision and order upon nature. Instead, they are the bringing to consciousness of the nature of nature through the human mind, itself one of nature's many manifestations. The pull of "the hid pulse of things" is not a tease, but a promise. When the imagination--embracing "the mystery of things that are" with its whole attention--acts as the agent of nature's self-revelation, it is indeed possible that "something may be understood." Discovery, however, may come with defeat: "It is by words and the defeat of words, / Down sudden vistas of the vain attempt, / That for a flying moment one may see" (Poems 274). We may not see the thing we seek; we may instead find a playful fox cub shaking a chicken bone or discover "the

knitting of light in fennel-plumes / And dew like mercury on cabbage-hide."

FOOTNOTES

Introduction

[1] George Steiner in Real Presences argues that language itself is an act of faith; he claims that "any coherent understanding of what language is and how language performs . . . any coherent account of the capacity of human speech to communicate meaning and feeling is, in the final analysis, underwritten by the assumption of God's presence" (3). Steiner asserts that "the experience of aesthetic meaning in particular . . . infers the necessary possibility of this 'real presence'" and that "the wager on the meaning of meaning . . . is a wager on transcendence" (3-4).

[2] Maritain points out that "Coleridge used the word *poesy* with the same universal meaning: ' . . . poesy in general, as the proper generic term inclusive of all the fine arts as its species'" (Creative Intuition 297).

[3] Jacob Bronowski's concept of induction responds affirmatively to James' rhetorical question:

> The man who proposes a theory makes a choice--an imaginative choice which outstrips the facts. The creative activity of science lies here, in the process of induction understood as the making of hypothetical theories. For

> induction imagines more than there is ground for, and creates relations which at bottom can never be verified. Every induction is a spceculation, and it guesses at a unity which the facts present but do not strictly imply" (10-11).

Thomas Kuhn writes in The Structure of Scientific Revolutions:

> Observation and experience can and must drastically restrict the range of admissible scientific belief, else there would be no science. But they cannot alone determine a particular body of such belief. An apparently arbitrary element, compounded of personal and historical accident, is always a formative ingredient of the beliefs espoused by a given scientific community at a given time. (4)

[4] Bronowski's observation that the sciences and the arts have historically flourished together seems at least a partial refutation of Richards' concern for poetry. Bronowski points out that "the great creative periods of literature and art"--during the Golden Age of Greece (from 600 BC till 300 BC) and during the Renaissance--were "the two periods in which science was born" (A Sense of the Future: Essays in Natural Philosophy 8).

[5] Falck says that to survive, theologians must become literary critics:

> If there is to be such a separately identifiable discipline as theology at all, it can now coherently be based only on the recognition of the true nature of myth, and must be a matter of critical exploration of the principal mythic structures which the texts (in the widest sense) of our culture present us with. . . . the available mythic texts must in fact comprise the whole of

> our known mythology, including the whole of our poetry and literature. (132)

Falck also believes that if anything "which can be distinctively identified as religion is to survive," then art must become its "reality-inscribing heart and soul" (77).

[6] Schlain offers a multitude of insistences of what he believes is revolutionary art anticipating visionary science. For example, Leonardo da Vinci's studies of light and motion preceded Newton's by two centuries--including Leonardo's articulation of a concept of inertia that stood as the "Principle of Leonardo" until Newton published the Principia and declared his First Law of Motion. Schlain says that Leonardo's attempt to understand the concept of inertia brought his "astonishingly close to the central clue that allowed Newton to elaborate his laws of motion two centuries later." Leonardo's Principle states: "All movement tends to maintenance, or rather all moved bodies continue to move as long as the impression of the force of their motors (original impetus) remains in them." Newton's First Law of Motion states: "Every body continues in its state of rest, or or uniform motion in a straight line, unless it is compelled to change that state by forces impressed upon it" (qtd. in Schlain 75).

Newton described the nature of light in his Opticks, but long before Newton, Leonardo painted the rare qualities of light: " . . . the mysterious opalescence of the distant atmosphere . . . . ineffable

vistas of faraway mountains, the wordless interplay of ethereal light upon a woman's mile, the rippling fasiculations of a horse in motion" (77). Schlain says that"[u]sing both brush and pen, Leonardo changed the way we see the world and this subtle shift in mind-set prepared people to be receptive when Newton introduced a new way to think about the world . . . . the artist's revelation preceded the physicist's" (83). According to Schlain, "Newton repeatedly worked out with mathematical precision what Leonardo had expressed in concise drawing" (78). Bronowski says that Leonardo gave science what it most needed--"the artist's sense that the detail of nature is significant" (10).

[7] Eiseley found this phenomenon in literature. He asserts that "[g]reat literary geniuses often possess an ear or sensitivity for things in the process of becoming, for ideas which are just about to be born." He cites as an example Coleridge's reference in a lecture in 1819 to "a belief which has become quite common even among Christian people, that the human race arose from a state of savagery and then gradually from a monkey came up through various states to be man" (FOT 61). Darwin claimed to have heard only talk of the permanence of the species.

[8] Zajonc says that "the suggestion is very often advanced that we must give up understanding in favor of computing." He says "this is to give up too much" (121).

[9] References to Eiseley's works wil be documented parenthetically in the text using the following abbreviations: The Immense Journey (IJ), Darwin's Century (DC), The Firmament of Time (FOT), The Mind as Nature (MAN), The Unexpected Universe (UU), The Invisible Pyramid (IP), The Night Country (NC), Notes of an Alchemist (NOA), The Innocent Assassins (IA), All The Strange Hours: an Excavation of a Life (ASH), Another Kind of Autumn (AKA), The Star Thrower (ST), All the Night Wings (ANW), and The Lost Notebooks of Loren Eiseley (LN).

[10] Maritain distinguishes between *poetic myths* and *metaphysical myths*. He describes poetic myths "as the symbolic approaches of imaginative thought, ceaselessly renewed by poets and as part of the nature of poetry. He calls *metaphysical myths* those which are "the organic signs and symbols of some faith actually lived": " . . . they are forms . . . through which a conviction of the entire soul nourishes and quickens from within the power of creative imagination. Such myths have no force except through the faith man has in them. It is essential to them to be believed in" (318). Maritain believed that poets need metaphysical myths in order to create poetical myths: "Metaphysical myths are needed by poetry, but they cannot be provided by poetry" (318).

[11] Gerber and McFadden identify six motifs, based on his concept of evolution, that occur throughout Eiseley's writing: 1) "Time is immense, linear, and creative." 2) "Humanity belongs to the

community of descent." 3) "The human brain creates a second World." 4) "For the evolutionist, the common day has turned marvelous." 5) "Guided by Bacon's ideas, science can serve human ends." 6) "Scientific knowledge bestows neither freedom nor the capacity for love." (50-53).

[12] Citations from Wilbur's poems will be taken from his New and Collected Poems and will be documented parenthetically in the text as (Poems). In addition to twenty-seven of his most recent works, this collection reprints in their entirety, in reverse chronological order, the poems from Wilbur's six preceding volumes.

[13] Woodard comments on the critics produced in the beat and confessional era: "We appear to have reared a race of critics who go about with their tongues probing their aching teeth, hungering to see lepers, monstrosities, freaks, wounds, blood, madness. We require to be told that we are mad, or have at least the rich potential for going mad" ("Richard Wilbur's Critical Condition" 223).

[14] Michelson suggests without elaborating that Wilbur's life has had more difficulty than weeding his mother's roses: "From Wilbur himself, and from people who know him well, one can gather enough indications that his life has been more complex and difficult than the reserved demeanor of some of his poems might imply" (Wilbur's Poetry 199).

[15] Scott qualifies his encomium of Edwards with "before Reinhold Niebuhr" ("Poetry of Richard Wilbur" 9).

[16] Wilbur says that he does not make much use of Christian symbols or doctrine in his poetry because he "cannot bear to borrow the voltage of highly-charged words" and because "[p]oetry full of ready-made emotional value will also not represent the movement of the mind and heart toward understanding and clarification, and poetry has to be discovery rather than the celebration of received ideas" (qtd. in Cummins "Questionnaire to Mr. Wilbur" 42).

[17] Although the war prompted him to write poetry, Wilbur says he got few "printable, usable, bearable poems" out of the war. (qtd. in Broughton, "An Interview with Richard Wilbur" 143).

[18] Among those poets and poems Langbaum cites as participating in the revival of the "new nature" poetry are Wallace Stevens ("The Snow Man," "Tatoo"), Marianne Moore ("A Grave," "The Plummet Basilisk," "The Fish"), to a lesser extent Robert Frost ("The Need of Being Versed in Country Things", "Desert Places"), Richard Wilbur ("The Toad"), and Richard Eberhart ("The Groundhog"), W. S. Merwin ("The Mountain"). Langbaum describes a revival of nature poetry in the twentieth century among American poets who have embraced a non-anthropomorphic concept of nature, "the only one that could inspire conviction . . . the mindlessness of nature, its nonhuman otherness: a concept having nothing to do with optimism

or pessimism" ("The New Nature Poetry" 324). According to Langbaum, the new nature poetry "deals often with the line between nonliving and living unconsciousness . . . . the new nature poetry is really about that concept by which living unconsciousness has come to be understood as a form of consciousness and, paradoxically, the most vital form of it" (332). The new concept of nature has "connected the substratum of our minds with the minds of the very lowest reaches of animal life, thus reanimating all of nature and making nature poetry possible again" (332).

[19] Hill cites as particularly good examples of the imagination triumphing over fact the following poems: "Cigales," "In a Bird Sanctuary," "Objects," "Popular, Sycamore," "'A World Without Objects . . . ," "Merlin Enthralled," and "Love Calls Us to the Things of This World"

Chapter I

[1] According to Barrett, Heidegger's use of the term Dasein avoids the assumption of "a definite *object* with a fixed nature" that comes with the term *man*, and it avoids the Cartesian dualism inherent in the term *consciousness* (Irrational Man 218).

[2] Falck relates the impulse to live an authentic existence to a pre-conscious purposiveness:

> That it is a part of the human condition that we should be faced with the possibility, or the task, of striving for a relatively authentic, rather than a relatively inauthentic apprehension of the world around us follows directly from our nature as embodied and striving beings. As conscious and language-using organisms, it is a part of our nature that our language should both give structure to, and be dependent for its evolution upon, our transient perceptions, and that the capacity of our languge to reach beyond, or to transcend, the forms or experience and understanding which we at any time possess should be shaped by a pre-conscious purposiveness which is partly governed by our physical and biological organization. Our pursuit of such authenticity, or our embracing of such transcendence, is a care, or a concern, to relate authentically to reality, and is a continuation at the human level of the adaptiveness which is the essence of all life. (102-103)

[3] While concurring in the central place poetry must play in restoring our spiritual vision, Colin Falck describes Heidegger's view derived from his meditations on Holderlin as "unreconstructedly priestly" (Myth, Truth and Literature 144).

[4] Charles Hartshorne was convinced that the chief weakness of traditional arguments for God lay in the inadequacy of the idea of God they intended to prove (Cobb & Griffin 40). Process theology uses the conventional word God for an unconventional concept. Process theology discards traditional concepts of God including: the idea of God as a "cosmic moralist" dispensing law, judgment, and punishment; the concept of God as immutable, passionless, absolute, and irresponsive; the idea of God as a controlling power who determines every detail of the world; the idea of God as protector of the status quo of ordained order; and the concept of God as male--

"dominant, inflexible, unemotional, completely independent" (Cobb and Griffin 8-10).

5 William Barrett quotes Pascal on the negative potential of play: "Both habit and diversion, so long as they work, conceal from man 'his nothingness, his forlornness, his inadequacy, his impotence and his emptiness'" (Irrational Man 112-113).

6 Lawrence I. Berkove says that "Eiseley was not a little Melvillean in his apprehension that the events of nature seemed like pasteboard masks, and that if nature was not an agent, it was an inscrutable prinicipal" ("Refuge" 89).

7 Stevenson describes Mr. Hyde as "pale and dwarfish, he gave the impression of deformity without any nameable malformation, he had a displeasing smile, he had borne himself . . . with a sort of murderous mixture of timidty and boldness, and he spoke with a husky, whispering and somewhat broken voice. . . " (20). Dr. Jekyll, on the other hand, was was "a large, well-made, smooth-faced man of fifty, with something of a slyish cast perhaps, but every mark of capacity and kindness . . . " (25). Dr. Jekyll writes:

> It was on the moral side, and in my own person, that I learned to recognise the thorough and primitive duality of man; I saw that, of the two natures that contended in the field of my consciousness, even if I could rightly be said to be either, it was only because I was radically both. . . . It was the curse of mankind that these incongruous faggots were thus bound

together--that in the agonised womb of consciousness, these polar twins should be continuously struggling" (91-91).

[8] Andrew Angyal cites W. J. Locke's romantic novel about Gypsies, The Golden Journey of Mr. Paradyne, as an influence on Eiseley's "The Golden Wheel." In a letter written from a campsite of a paleontological dig to his friend Wilbur Gaffney, Eiseley tells of seeing in the distance a beautiful young gypsy woman and thinking that he should have been born to an outcast people "who have no ties but a duty to horizons." He also asked Gaffney for "the name of that book in which a man escaped his world by way of a pedlar's cart" (Angyal).

[9] Eiseley speaks of those "seriatam events" that biologically preordain subsequent possibilities. One of those events occurred "the moment when bats dropped into air and fluttered away from the insectivore line that gave rise to ourselves." Eiseley wonders "[w]hat fragment of man, perhaps a useful fragment, departed with them?" What was lost "had it lingered, might have made a small, brave, twilight difference in the mind of man" (55).

[10] Cobb and Griffin describe the upheaval in the human psyche that occurred with the axial period as a mixed blessing: Consciousness by testing "the results of the free play of psychic activities against the world it highlights in sense experience" disciplines the "nonconscious imaginative life." "The ascendancy of

the rational consciousness and the reordering of the inner life to conform with it constituted the crossing of another major threshold in the historical development of structures of existence" which Whitehead called the emergence of "rational religion" and Jaspers called the "axial revolution" (89). The price of the advance of rationality was the dis-ease resulting from the psyche's subordination of the body. The primary activity of the psyche was no longer nonconscious and "prethematized," no longer influenced primarily by the body, the tribe, the natural environment, or the divine reality. "The environment, including both the body and other people, was sharply distinguished from the self whose seat was now in the rationalized consciousness" (90). Cobb and Griffin conclude that "[t]he rational religions that arose in the axial perod were at once the vehicle of this deepening of the 'fall' and ways of salvation from its consequences" (90).

[11] Eiseley would have been less than three years old in 1910 when Halley's Comet was visible. It is extremely unlikely that he would have any memory of the event, let alone such a detailed one. Of course, his father may actually have taken him out to look at the night sky and then spoken of it on later occasions so that what he remembers are his father's memories. Eiseley is so bad at writing dialogue that everything he writes in that form sounds stilted and unnatural.

[12] Written in groups of one hundred, the meditations were intended for Traherne's friend Mrs. Hopton, the center of a small society at Kington in Herefordshire that devoted itself to the study and practice of religion (Margolioth vi). Interestingly, The Oxford Companion to English Literature, notes that Traherne was "among the first English writers to respond imaginatively to new ideas about infinite space, and at times virtually equates infinite space with God" (992). Asked to name the philosophers and theologians who have had the greatest impact on him, Wilbur listed Traherne along with Augustine and Pascal (Cummins, "Questionnaire to Mr. Wilbur" 43).

[13] Only one brief treatise, "On the Sizes and Distances of the Sun and Moon," survives and Aristarchus' early heliocentric speculations are known only through the writings of Plutarch and Archimedes.

[14] Photosynthesis, the process whereby the energy of sunlight is absorbed by the chlorophyll pigments in green plants and then transformed and stored, provides for life on earth: "The chemical energy and electrical energy used by brain cells, for example, were once sunlight that was absorbed by the chlorophyll in green plants" (Basham 14: 366). Incarnation is a religious myth and a scientific fact. All that live on Earth, including our sense-born imaginations, are the "loose change" of sunlight.

[15] John Reibetanz believes the primary causes of Wilbur's affirming imagination are "deeply personal, and seem to involve a slow and perhaps largely unarticulated process of mutual accommodation between a strong need to love--to see, know and accept what *is*--and an equally stong need to create--to envision and figure forth a new reality" ("What Love Sees" 76). Harris suggests that Wilbur's devotion to the craft of poetry and his "capacity for joyful love" have kept his work vital for forty years ("Forty Years" 415).

[16] Riebetanz notes that when love call us, the first thing that happens is "The eyes open" (73)

[17] Stitt notes that "Wilbur's injection of motion into a scene is his way of imagistically indicating the presence of the spiritual within the material" (26).

[18] Frank Littler points out that the argument of "Love Calls Us to the Things of This World" contradicts the admonition of I John 2:15: "Love not the world, neither the things that are in the world."

[19] Wilbur's lines that describe "holy things" as

> . . . more warmly constant than the sun,
> At whose continual sign
> The dimly prompted vine
> Upbraids itself to a green excellence (Poems 244)

express a milder version of the vegetable urge than the following lines from Stevens' "Nomad Exquisite":

> As the immense dew of Florida
> Brings forth
> The big-finned palm
> And green vine angering for life (Palm 44)

Wilbur's vine "upbraids" itself. Stevens' vine "angers" for life.

[20] The *fovea centralis* is a small rodless area of the retina which affords acute vision.

[21] Hylas, whose name comes from the Greek word for *matter*, is the name of one of the two participants in Berkeley's Three Dialogues between Hylas and Philonous. Philonous, whose name means "lover of mind," is the voice of Berkeley's immaterialist viewpoint, and Hylas argues for the Cartesian or Lockean dualist position regarding mind and matter. A devoutly religious man, Berkeley attempted to vindicate Christian tenets without undermining the impressive discoveries of eighteenth-century science. Berkeley wrote that "[a]ll the Choir of Heaven and the furniture of earth, in a word all those bodies which compose the mighty frame of the world, have no substance without a mind" (qtd in Jones 3. 288).

[22] Whitehead's cosmological and theistic process theology/philosophy offers categories "for speaking about God and the nonhuman world as they exist independently of human perception and thought." Cobb and Griffin perceive a need for a "cosmological philosophy . . . confirmed by the incurable realism of human beings":

> We cannot finally live except *as if* the world exists independently of human experience. Our incurable realism shows that we are directly aware of being in a world of other things which are actual independently of our awareness of them. They are *given* to us, and given as having existence, structure, and qualities apart from our perception of, and thought about, them. This implies that the natural sciences tell us something about reality and not merely about human experience. Accordingly, people cannot be satisfied with theologies that relegate the revelations of science to the status of information about mere appearance, and thereby fail to discuss science in terms of the same set of concepts used to discuss religion, ethics, and aesthetics. (161)

[23] Samuel Johnson also had something to say about cows and sceptics: "Truth Sir, is a cow, which will yield such people [sceptics] no more milk, and so they are gone to milk the bull" (qtd. in Oxford Dictionary of Quotations 275).

[24] The French Alexandrine was subsequently perfected by the great dramatists of the seventeenth century, including Racine and Moliere whom Wilbur has translated to considerable acclaim.

[25] Nathan Scott in "The Poetry of Richard Wilbur: "The Splendor of Mere Being" also notes this connection with Stevens:

> . . . the final clause of the poem, in reminding us that "a sighted ship / Assembles all the sea," puts us in mind of Stevens' "Anecdote of the Jar," a jar which he placed amidst "the slovenly wilderness" of a desolate Tennessee landscape: "The wilderness rose up to it, / And sprawled around, no longer wild," the jar having taken "dominion everywhere"--by dint of its being a work of artifice, a work of the imagination, which, as such, substantializes a form round which the formelessness of this wilderness can assemble itself. (27)

[26] Ogival refers to the s-shaped curves of some moldings or the voluptuous curves of a pointed arch.

[27] The phrase "subject goddess of the dreams of men" brings to mind Wilbur's poem "Playboy" which presents a stockboy having his lunch over a pornographic magazine. A naked girl kneels "in a supple pose" amid all the pink cliches of an erotic decor. Wilbur's description of the young woman subject and the playboy who masters her with his gaze suggests a "Grecian Urn" amusingly debased:

> Nothing escapes him of her body's grace
> Or of her floodlit skin, so sleek and warm
> And yet so strangely like a uniform.
> But what now grips his fancy is her face,
>
> And how the cunning picture holds her still
> At just that smiling instant when her soul,
> Grown sweetly faint, and swept beyond control,
> Consents to his inexorable will. (Poems 146-147)

[28] John Gery in "The Sensible Emptiness in Three Poems by Richard Wilbur" sees the diction of this section as much more positive and affirming: "The despairing image of just a few lines before is dramatically countered by both the sensuous imagery of the field and the buoyant language of the next three stanzas: *beheld, starry, manifold, lift, white, daisy-drift, chasms, strews, commit*. . . . All that surrounds us, all of nature, seems to have conquered 'the nip of fear' that pervades the earlier stanzas" (122). Grey, however, finds that the imagined annihilation in "In the Field" takes "precedence over our language, our sensible experience, and nature itself" and finds in the poem "if not a loss of faith in nature as a vial for the spirit, a profound skepticism" (123).

[29] The form of "Sunlight Is Imagination" affirms its message of mutability. The poem is full of words of movement and change: shift, cleave, gone, waving away, to light, climbing, shining, ciphered, cleanse repair, makes, barrens, bleeds, parches, spring, breaks, resign, crave, pine, save, touch, spare, shattering, beseech, is changed, die, swings, run, blight, trust, falls, undone, lose, choose, welcome, etc. The lengths of the lines vary like the light and shadow of wind-tossed trees; the pattern of stresses for each stanza is more or less 1, 4, 4, 4, 5, 4, 2, 2, 1, 5. The basic rhyme pattern of the ten-line stanzas is a, b, c, c, b, b, d, b, d, e with the short first lines connected by rhyme to the last word of the preceding stanza. The form of the

poem itself presents variation within design, each change a part of and justified by a larger pattern of decline and renewal

[30] In the eleventh book of The Odyssey, Odysseus descends into Hades and speaks with the ghosts of dead heroes, including Achilles. Reminding Achilles that he was given "'one honour with gods'" in life and that he is now "'a great prince here among the dead,'" Odysseus urges the son of Peleus to "'let not thy death be any grief to thee, Achilles.'" Achilles replies: "'Nay, speak not comfortably to me of death, oh great Odysseus. Rather would I live on ground as the hireling of another, with a landless man who had no great livelihood, than bear sway among all the dead that be departed'" (Homer 176).

[31] As Yeats put it in "Among School Children," "O body swayed to music, O brightening glance, / How can we know the dancer from the dance?" (Collected Poems 214).

[32] Hecht says that Wilbur's recurrent subject is "not only the motion of change and transition but how that motion . . . is the very motion of the mind itself." Hecht finds in Wilbur's poetry "the most important and best aspects of cinematic film: the observation of things in motion from a viewpint that can, if it cares to, move with an equal and astonishing grace." Unlike motion pictures, Wilbur's poems can also make "a transition, or rather, a translation, of outward physical action . . . into a condition of the imagination; a dissolving of

one real of reality into another . . . " ("The Motions of the Mind" 126-127).

Chapter II

1 Penrose defines a computation as "the action of a Turing machine" and explains that a Turing machine is "a mathematically idealized computer . . . [that] never makes any mistakes and can run on for as long as is necessary . . . [and] has an unlimited storage space" (Penrose 17). By "noncomputational" Penrose does not mean chaotic or random or environmentally influenced or unmanageably complicated; rather, noncomputational problems cannot be solved algorithmically in practice or principle.

2 Eiseley's descriptions of the evolution of life and mind have those qualities which Ian Barbour attributes to myth: They offer a version of cosmic order. They provide the cognoscenti with ways of structuring and understanding experience in the present. And they inform human beings about the nature of their self-identity and the framework of significance in which they participate (Barbour 5). However, Eiseley's myth of on-going creation offers the order of constant change, an understanding of experience and identity based on mystery, and a framework of significance that guarantees human life no special significance.

[3] Wilbur's position in "Lamarck Elaborated" seems close to Goethe's insistence on recognizing the validity and primacy of phenomena: "Goethe proposed that by staying with the phenomena, varying their conditions of appearance, experimenting with them but holding the phenomena always in view, cognitive capacities would arise suited to the proper understanding of them" (Zajonc, "Light and Cognition" 125). In Scientific Studies, Goethe wrote, "'Every new object, clearly seen, opens up a new organ of perception in us'" (qtd. in Zajonc, "Light and Cognition" 125).

[4] Euclid's mathematical inquiries into the nature of sight became the basis for subsequent Arab work on optics and laid "the foundation for the discovery of linear perspective by Brunelleschi, Alberti, and Durer centuries later" (Zajonc, Catching the Light 25). However, Zajonc says that this "mathematization" of vision came at a price: "It distanced man from the earlier and more immediate experience reflected in the Platonic understanding of sight" (25). With Euclid, the subjective experience of seeing began to be abstracted into mechanics and mathematics. "Euclid's handling of light foreshadows the growing separation of sight as lived experience from sight as a formal object of investigation" (26).

[5] The cochlea contains fluid which is set in motion by the vibrations of soundwaves traveling along the malleus, incus, and stapes. Movements of the footplate of the stapes agitate the cochlear fluid which in turn causes movement of the basilar membrane within

the cochlea. This movement stirs the hair cells of the organ of Corti to slide against the tectorial membrane. The bending of the hairs stimulate the attached cochlear nerve fibers and cause the cochlear nerve to transmit impulses to the hearing center in the brain's temporal lobe. On the other hand, movement of fluid in the three semi-circular canals of each ear sends signals to the brain to help maintain balance. Depending on the direction of the motion, more signals come from one ear, less from the other; if the head is stationary, the brain get equal signals from both ears. The brain is able to interpret these signals along with other data to determine the head's position. The semi-circular canals empty into the utricle which is connected by a duct to the saccule. The utricle and saccule, fluid-filled sacs within the vestibule of the inner ear, are lined with delicate hairs connected to nerve fibers. Above the hair cells are membranes containing grains of minerals called otoliths. The vestibular nerve fibers are stimulated by pressure from the otoliths which respond to the pull of gravity. Transmitted by the vestibular nerve to the brain, this information allows a person to maintain the body's posture.

[6] One wonders on what evidence Nietzsche could describe man a "once and for all a sociable and pacific creature."

[7] Wilbur describes a phenomenon similar to the mind's graceful, cave-correcting error in his poem--"April 5, 1974."

Strolling in a "dull pasture," the poet notices the world about him doing strange things:

> "Dead grass appeared to slide and heave,
> Though still too frozen-flat to stir,
> And rocks to twitch, and all to blur. (Poems 78)

He wonders what causes "this rippling of the land": "Was matter getting out of hand / And making free with natural law?" Peering about, the poet discovers "a fact as eerie as a dream":

> There was a subtle flood of steam
> Moving upon the face of things.
> It came from standing pools and springs
> And what of snow was still around (Poems 78)

His perception of the late winter/early spring world is altered by the shape-shifting motion of the steam, frozen winter's vaporizing as the world warmed to spring. The poet explains the phenomenon and draws a telling comparison:

> It came of winter's giving ground
> So that the freeze was coming out,
> As when a set mind, blessed by doubts
> Relaxes into mother-wit.
> Flowers, I said, will come of it. (Poems 78)

Nature, giving up the frozen form of winter, relaxes into the chaotic, creative exuberance of spring. Just so, a mind which relinquishes its

rigid set and is "blessed by doubt" has the chance of making a "graceful error," of learning or imagining something new: "Flowers . . . will come of it."

[8] Marjory Scheidt Payne says that Wilbur's image of the struggling starling is, in part, a metaphor for a painful episode in his daughter Ellen's life: " . . . he remembers a time of great suffering and vulnerability in his daugher's life two years previously. The pain of that memory as well as Wilbur's habitual sense of tact prevents him from referring to the incident openly" (Giver of Due Regard 213).

[9] Anthony Hecht finds in the "ingenious philosophic course" of "The Event" a cavorting "with the pre-Socratic puzzle of the 'the One' and 'the Many,' a playfulness that is carefully carried out in such words as 'their image' (which is singular and plural), 'singular vision' (s.), 'divergences' (pl.), 'alone' (s.), 'images' (pl.), and 'formations' (both s. and pl.)" ("Master of Metaphor" 24).

[10] "And the Lord went before them by day in a pillar of a cloud, to lead them the way; and by night in a pillar of fire to give them light; to go by day and night." (Exodus 13:21)

[11] One of the tenets of Whitehead's process theology is that "true individuals are momentary experiences" which means "that what we ordinarily call individuals, the sorts of things that endure

through time, are not true individuals, but are 'societies' of such. Personal human existence is a 'serially ordered society' of occasions of experience" (Cobb and Griffin 15).

[12] Virtue, however, could not be fated. Virtue depended on the interaction of the chosen life and all its manifold qualities with the choices made in living: " . . . Virtue owns no master: as a man honours or dishonours her, so shall he have more of her or less. The blame is his who chooses" (Plato 355). In order of the lots that fell to them, they might rummage among the sample lives representing various combinations of qualities and choose a role to play in the coming life "but in none of these lives was there anything to determine the condition of the soul because the soul must needs change its character according as it chooses one life or another" (Plato 356). The chooser determines the nature of his soul--"calling a life worse or better according as it leads to the soul becoming more unjust or more just" (356). Ironically, a sojourn in heaven was not the best preparation for a virtuous life for returning souls to earth. As Er watched, the heaven-returned soul to whom the first lot fell chose the role of "the most absolute despotism"; among the evils fated to his life was the devouring of his own children. Plato wrote that the ease of his previous life on earth and then in heaven did not prepare him for making wise choices:

> He was one of those who had come down from heaven, having spent his former life in a well-ordered commonwealth and become virtuous from habit without pursuing wisdom. . . . not

> the least part of those who were caught in this way were of the company which had come from heaven, because they were not disciplined by suffering; whereas most of those who had come up out of the earth, having suffered themselves and seen others suffer, were not hasty in making their choice. For this reason, and also because of the chance of the lot, most of the souls changed from a good life to an evil, or from an evil life to a good. (Plato 357)

[13] The "printless sea" recalls the epitaph Keats chose for his tombstone: "Here lies one whose name was writ in water." Dying of consumption, Keats feared that he might "cease to be" before his pen had "glean'd" his "teeming brain / Before high-piled books, in charactery" would hold "like rich garners the full-ripened grain."

[14] The phrase "at the receipt of custom" appears in three of the gospels--Mathew 9:9, Mark 2:14, and Luke 5:27. Jesus saw a man (called Matthew in the book of Matthew and Levi in Mark and Luke) "sitting at the receipt of custom" and called upon the man to "'Follow me.'" The publican did so and held a great feast for Jesus and his disciples. Seeing this, the scribes and pharisees complained about the religious teacher dining with publicans and sinners. Jesus responded: "'They that are whole need not a physician; but they that are sick. I am come not to call the righteous, but sinners to repentance'" (Luke 5:31-32).

[15] According to the Dictionary of Saints, Saint Michael bears the traditional honor of being captain of the heavenly host, protector of Christians (especially soldiers), and guardian of the sick. He was

said to have been seen in a vision at Monte Gargano in southern Italy between 492-496 A.D. In Revelation 12:7-9, Michael and his angels are described fighting a great red dragon and his angels. Michael and his host prevail and cast the dragon--the Devil Satan--out of heaven and onto the earth where Satan vents his rath.

16 Wilbur himself has said that "The Mind-Reader" is "a poem about the mind of God. When one considers the agony of the mind reader, one thinks of the unimaginable tolerance with which the deity is willing to listen to us all, be aware of us all. There is an utter incapacity of the human mind to tolerate what God would tolerate" (qtd. in Jackson 145).

17 The botanical urge as an expression of the life force sounds in other modern poems. The opening line of "Seed Leaves"--"Here something stubborn comes"--describes the same urge Roethke captures in "Cuttings (later)":

> The urge, wrestle, resurrection of dry sticks,
> Cut stems struggling to put down feet,
> What saint strained so much,
> Rose on such lopped limbs to new life?
> (Roethke 754)

Wilbur's poem begins as a milder, less focused version of Roethke's other "Cuttings":

> Here something stubborn comes,

Dislodging the earth crumbs
And making a crusty rubble.

Roethke's poem tells the same sequence but in the manner of a delayed-action camera tightly focused on one particular sprout:

One nub of growth
Nudges a sand-crumb loose,
Pokes through a musty sheath
Its pale tendrilous horn.
(Roethke 754)

The same powerful, procreant urge is "the force that through the green fuse drives the flower" and drives Dylan Thomas' "green age." Thomas acknowledges from the first lines of his poem that the force that propels the flower is also the same force "that blasts the roots of trees" and is the poet's own destroyer. Like Shiva, the force that creates, eventually destroys. The "something stubborn" of Wilbur's poem appears also in William Carlos Williams' "Spring and All." As "sluggish / dazed spring approaches," "the reddish / purplish, forked, upstanding, twiggy / stuff of bushes and small trees" enter a new world "naked, / cold, uncertain" and become quickened and defined:

Now the grass, tomorrow
the stiff curl of wildcarrot leaf
One by one objects are defined--

With this quickening comes "clarity, outline of leaf"--"the profound change" that causes bush and tree to root--"grip down and begin to

awaken" (Williams 291). In "Tortoise Gallantry," a faunal version of this floral urge, D. H. Lawrence calls the force, "This grim necessity from within" (Lawrence 315).

[18] "Seed Leaves" is also a poem about writing poetry--in this case escaping the dominance of a powerful mentor. The epigraph indicates that "Seed Leaves" is a "Homage to R. F."--Robert Frost. Michelson points out how Wilbur's poem echoes Frost's "Putting in the Seed"--

> . . . just as the soil tarnishes with weed,
> The sturdy seedling with arched body comes
> Shouldering its way and shedding the earth crumbs.

and sounds like "Nothing Gold Can Stay"--

> Nature's first green is gold,
> Her hardest hue to hold.
> Her early leaf's a flower;
> But only so an hour.
> Then leaf subsides to leaf.
> So Eden sank to grief,
> So dawn goes down to day.
> Nothing gold can stay.

Michelson suggests that Wilbur has paid a star student's homage of a teacher "by going with refreshed eyes into problems which the teacher has found and mapped out" and succeeds in making his own poem with his own prosody and "his own meditation of fate and the natural world" (30, 31).

[19] Wilbur's choice of the verb "stoke" is a pun for the initiated --a tongue-in-cheek allusion to Bram Stoker, the author who stoked the twentieth century imagination with his tale of vampirism, Dracula.

[20] In "On the Eyes of an SS Officer" Wilbur speaks of "this / My opulent bric-a-brac earth."

[21] In his essay "Redemption Through Nature: A Recurring Theme in Thoreau, Frost and Richard Wilbur," George Monteiro quotes from a 1916 interview in which Robert Frost said that love, the moon, and murder have poetry in them, but so does "the axe-handle of a French Canadian whoodchopper": "You know the Canadian woodchoppers whittle their axe-handles, following the curve of the grain, and they're strong and beautiful. Art should follow lines in nature, like the grain of an axe-handle. False art puts curves on things that haven't any curves" (qtd. in Monteiro 797).

[22] Robert Shaw says that "Children of Darkness" is "like many other poems of Wilbur's . . . natural history with a strong undercurrent of natural theology" (182).

[23] The eighteenth-century uniformitarian geologist James Hutton saw the earth made by a continuous process of decay and renewal and blessed the former for creating the possibility of the

latter: "'This decaying nature of the solid earth is the very perfection of its constitution as a living world'" (qtd. in DC 72). Hutton had the vision to find perfection in decay.

[24] Near the midpoint in time between Wilbur and Bede, there is another connection which lies unspoken but implicit in "Gnomons." When asked which poem in all of literature he would like to have written, Wilbur replied, "'the Divine Comedy,'" and he studied Italian to become competent to read it in the original (Conversations 160). Therefore, it is fair to assume Wilbur's knowledge that in The *Paradiso* Dante makes the heavenly Bede a focus of dancing light. Dante locates Bede in the "Region of the Sun" where he along with Aquinas and ten other doctors of the church--"those Sun-surpassing souls"--dance in radiant pleasure like a crown of living lights around Dante and Beatrice. Also, in the Canto X of The *Paradiso*, Dante celebrates the heaven-ordained obliquity of the zodiac that makes possible life on earth. In his verse translation, Allen Mandelbaum renders Dante's appreciation that a minor change in the architecture of the heavens would have obliterated life on earth:

> For if the planets' path were not aslant,
> much of the heavens' virtue would be wasted
> and almost every power on earth be dead
> (*Paradiso* 85).

Dante, who was both villified and celebrated for including much of his encyclopedic knowledge of science in The Divine Comedy, was

more right than he knew: The earth's position relative to the sun allows for the solar constant (the steady delivery of 1.99 calories of heat energy per square centimeter of the earth's surface per minute) which is essential to life on this planet. For Dante, the light-and-life-giving Sun is "Nature's majestic minister . . . / who writes the will of Heaven on the earth / and with his light measures the hours that run" (Paradiso 118). For Dante, the earth's sun--"as much as any eye has known of light"--serves as a pale metaphor for God, "the Sun of Angels." Like Wilbur who can speak his awe in only a "dusky rhyme," Dante records his inability to say the fullness of what he has seen:

> Though genius, art, and usage stored my mind,
> I still could not make visible what I saw
> (*Paradiso* 119)

Chapter III

[1] Falck refutes Coleridge's assumption that the artist has a different kind of imagination:

> Coleridge made a well-known distinction between the 'primary' and the 'secondary' imagination--between the imagination inherent in 'all human perception' and the imagination of the artist which 'disolves, diffuses, dissipates, in order to re-create'--but the distinction is in fact philosophically groundless. Coleridge had his own reason for wanting to hold on to his doctrinally-underwritten notions of virtue and true religion--in his case Christianity--and for not wanting to allow the human imagination to become our *only* arbiter of what can count as

real. (70)

[2] Edward Lucie Smith in his introduction to Musee d' Orsay: Impressionist and Post-Impressionist Masterpieces describes how the concept of morality in art changed in the nineteenth century:

> One of Monet's innovations was to paint the same motif over and over again . . . . Monet may have chosen Rouen Cathedral as the subject for one of these series with polemical intent, since here was a major Gothic structure infused with a wide range of meaning for all Frenchmen, and indeed for all Europeans who might see it. But these meanings were something the painter simply chose to ignore. He was intent only on recording the permutations of light and atmosphere on the complex facade, whose sole function was to modulate the atmospheric flux and make it visible. The Impressionist obsession with analysis of light and the process of seeing becomes the be-all and end-all of art; everything else is pushed aside as irrelevance.
>
> Monet's studies of Rouen Cathedral are of particular importance because they are the clearest demonstration of the way in which Impressionism altered the morality of painting. Until the middle of the nineteenth century, it had been a universally agreed idea that art was meant to express some moral standpint espoused by the artist. Impressionism changed all this. It declared morals in paintings to be irrelevant, yet at the same time it turned the actual practice of painting into a series of moral choices: the painter had to be completely true to his own feelings concerning the nature of art. It is this conviction which links two artists otherwise as different from one another as Monet and Cezanne. (9-10)

[3] Wilbur coincidentally has a poem about finding when he was ten the decaying carcass of his pet dog. As a boy he had been too horrified to go near the corpse putrefying in the summer heat. As a man, he, like Eiseley, feels the need to pay the necessary respect to

something that had lived and been loved. In a poem he asks for "The Pardon" and mourns the dead:

> My dog lay dead five days without a grave
> In the thick of summer, hid in a clump of pine
> And a jungle of grass and honeysuckle-vine.
> I who had loved him while he kept alive
>
> Went only close enough to where he was
> To sniff the heavy honeysuckle-smell
> Twined with another odor heavier still
> And hear the flies' intolerable buzz.
>
> Well, I was ten and very much afraid.
> In my kind world the dead were out of range
> And I could not forgive the sad or strange
> In beast or man. My father took the spade
>
> And buried him. Last night I saw the grass
> Slowly divide (it was the same scene
> But now it glowed a fierce and mortal green)
> And saw the dog emerging. I confess
>
> I felt afraid again, but still he came
> In the carnal sun, clothed in a hymn of flies,
> And death was breeding in his lively eyes.
> I started in to cry and call his name,
>
> Asking forgiveness of his tongueless head.
> . . . I dreamt the past was never past redeeming:
> But whether this was false or honest dreaming
> I beg death's pardon now. And mourn the dead.
> (Poems 285)

[4] The Second Law of Thermodynamics describes the impulse in any closed part of the universe toward thermodynamic equilibrium--heat energy moving from hotter to colder bodies until the energy is

evenly distributed throughout and chaos replaces organization; the process leads inexorably to maximum disorder or entropy. Referring to Eiseley's use of scientific concepts like evolution on or the Second Law, Gerber and McFadden say that "Eiseley does not hold his scientific subject matter at safe distance" but "entangles it in an intricate web of meditations and narrative so that the reader experiences the theories." Referring specifically to "The Last Neanderthal," they find that the Second Law becomes "merely one more way of speaking about time, remembrance, estrangement from nature, and self-transcendence" (Gerber and McFadden 24). Although scientific knowledge undergirds the essay, "the knowing scientist with his personal quest remains central" (27).

5 Xanthus, also called Scamander, was the name of a river and the god of the river. As it is told in Book XXI of The Illiad, the Xanthus flooded its banks to stop the great slaughter of the Trojans by Achilles. At Hera's request, Hephaestus set the river afire as it raged after Achilles; the fierce blaze caused the waters to recede to the river's usual confines and protected Achilles, Hera's protege.

6 Wendy Salinger finds "Wilbur's most moving political poem is at its heart about language" (17).

7 Eiseley also expressed his horror of a nuclear holocaust in terms of what it would destroy besides human beings. In the technical analyses of the potentials for human death and survival

after a nuclear war, Eiseley found little "to indicate concern for the falling sparrow, the ruined forest, the contaminated spring--all . . . that still spells to man a life in nature" (ST 261). Eiseley himself hoped that "somewhere, a cardinal may still be whistling on a green bush when the last man goes blind before his man-made sun. If it should turn out that we have mishandled our own lives as several civilizations before us have done, it seems a pity that we should involve the violet and the tree frog in our departure" (ST 261). Involving not only man but life itself in a final holocaust-- poisoning "in one's death throes, the very spring of life itself"--would, Eiseley said be "an act of petulant, deliberate blasphemy" (ST 261).

[8] The lines "'Dig deep enough and you might see the sky / As clear as at the bottom of a well" recall Frost's poem "For Once Then Something" in which the speaker tries to see past the surface reflection to something beyond:

> Others taunt me with having knelt at well-curbs
> Always wrong to the light, so never seeing
> Deeper down in the well than where the water
> Gives me back in a shining surface picture
> Me myself in the summer heaven godlike
> Looking out of a wreath of fern and cloud puffs.
> Once, when trying with chin against a well-curb
> I discerned, as I thought, beyond the picture,
> Through the picture, a something white, uncertain,
> Something more of the depths--and then I lost it.
> Water came to rebuke the too clear water.
> One drop fell from a fern, and lo, a ripple
> Shook whatever it was lay there at bottom,
> Blurred it, blotted it out. What was that whiteness?

Truth? A pebble of quartz? For once, then, something.
(Poems 276)

[9] The place names are fate's gift to a poet. Folly Bridge is actually the name given to the bridge which crosses the Thames (called the Isis in Oxford) east of Christ Church College where St. Aldate's becomes Abingdon Road. At the base of Folly Bridge, punts can be rented, and there the famous "bump races" are held. Godstow with its bridges and weir is about three miles southwest of Oxford.

[10] Vicksburg was a vital transfer point for rail and river traffic bringing food and military supplies into the Confederacy from the Southwest. Unfortunately for the Union, the city possessed "formidable natural defenses"--a perch on bluffs as high as 300 feet above the river with bayous and swamps to the west in Louisiana and a hillside command of the plains to the east.

[11] After months of study and diversionary skirmishes north of the city, Grant proceded on a plan that his aides declared might destroy the Union's chances of winning the war. Abandoning all precedent and his supply lines, Grant sailed his army on Admiral David Dixon Porter's boats directly under the Confederate artillery on the heights of Vicksburg and disembarked south of the city. He took Jackson to the east of Vicksburg and settled into a seige facing the rebel armies of General Pemberton in the west and General Johnston to his east. When he received a telegram from his commander in

Washington (General Halleck) telling him to desist in his foolhardy plan, Grant stuffed the message away and persisted. Gene Smith says that what Grant did was "positively Napoleonic in concept. He had split his enemies, routed them, driven them away or into their defensive works, marched and countermarched in their country 1,000 miles from home without a base of supplies" (152).

[12] Hard Times Landing, Louisiana, was the assembly point for Union troops waiting to cross the Mississippi to participate in the assault on Vicksburg.

[13] Admiral Porter tried to circle and approach Vicksburg through flooded woods and bayous.

[15] Wilbur uses "termless" in *"Marche aux Oiseaux"*--"The buyers in their termless hunt for love"--where *termless* suggests endless, inarticulate, unconditional longing (Poems 296).

[16] In his Preface, Copernicus mentions the speculations of Philolaus, Heraclides and Aristarchus, but it is not known whether he actually drew on these ideas or whether he was simply mentioning them to gain credibility for his own speculations (Armitage 133).

[17] Writing before "The Fourth of July" was published, Cummins says that Wilbur's poetry "is not littered with dying gods, authors, historical personages" and that his use of allusion is "neither

excessive nor obtrusive," but enhances both meaning and mood without calling "excessive attention to [the allusions] themselves" (18). Cummins believes that allusion functions in Wilbur's poetry "to keep alive the human capacity for seeing the magic in life" in an era that "prides itself on eliminating the mystery of natural phenomena" (19).

[18] Wilbur did not like the view he saw from the window in 1966:

> Our center of political power, Washington, is a literary and intellectual vacuum, or nearly so; the church, in our country, is broken into hundreds of sorry and provincial sects; colleges of Christian foundation hold classes as usual on Good Friday; our cities bristle like quartz clusters with faceless new buildings of aluminum and glass, bare of symbolic ornament because they have nothing to say; our painters and sculptors despair of achieving any human significance, and descend into the world of fashion to market their Coke bottles and optical toys; in the name of the public interest, highways are rammed through old townships and wildlife sanctuaries; all other public expenditure is begrudged, while the bulk of the people withdraw from community into an affluent privacy.
>
> ("Poetry and Happiness" 107)

[19] Macusi refers to a Cariban (Amerindian) people of Brazil or British Guiana.

[20] Michelson says that the Marginal Way is "a popular walk by the ocean's edge near Ogunquit, Maine" (93).

21 Gericault was a French painter of the early nineteenth century. Among his large, dramatic compositions abounding in baroque vigor, the most famous are Raft of the Medusa and Mounted Officer of the Imperial Guard. Raft of the Medusa portrays the dead, dying, and desperate crew of the ship Medusa sunk off the West African coast. The Mounted Officer pictures a sabre-wielding soldier looking backward from his rearing horse (Janson 480-481).

BIBLIOGRAPHY

Loren Eiseley--Primary Sources

Eiseley, Loren. All the Night Wings. New York: Times, 1979.

---. All the Strange Hours: The Excavation of a Life. Illus. Emanuel Haller. New York: Scribner's, 1975.

---. Another Kind of Autumn. Illus. Walter Ferro. New York: Scribner's, 1976.

---. Darwin's Century: Evolution and the Men Who Discovered It. 1958. New York: Anchor-Doubleday, 1990.

---. Notes of an Alchemist. Illus. Laszlo Kubinyi. New York: Scribner's, 1972.

---. Foreword. Not Man Apart: Lines from Robinson Jeffers, Photographs of the Big Sur Coast. Ed. David Brower. San Francisco: Sierra Club, 1965. 23-24.

---. "The Enchanted Glass." American Scholar 26 (1957): 478-492.

---. The Firmament of Time. 1960. New York: Atheneum, 1984.

---. The Immense Journey. New York: Vintage-Random, 1957.

---. The Innocent Assassins. Illus. Laszlo Kubinyi. New York: Scribner's, 1973.

---. The Invisible Pyramid. Illus. Walter Ferro. New York: Scribner's 1970.

---. The Lost Notebooks of Loren Eiseley. Ed. Kenneth Heuer. Illus. Leslie Morrill. Boston: Little, 1987.

---. The Man Who Saw Through Time. Rev. ed. of Francis Bacon and the Modern Dilemma. 1962. New York: Scribner's, 1973.

---. The Mind as Nature. New York: Harper, 1962.

---. The Night Country. Illus. Leonard Everett Fisher. New York: Scribner's, 1971.

---. The Star Thrower. New York: Harvest-Harcourt, 1978.

---. The Unexpected Universe. New york: Harvest-Harcourt, 1969.

Eiseley--Secondary Sources

Angyal, Andrew J. Loren Eiseley. Twayne's United States Author's Ser. 442. Boston: Twayne, 1983.

Auden, W. H. "Concerning the Unpredictable." The New Yorker 21 Feb. 1970: 118-125.

---. Introduction. The Star Thrower. By Loren Eiseley. New York: Harvest-Harcourt, 1978. 15-24.

Bates, Marston. Rev. of Darwin's Century by Loren Eiseley. Science 27 June 1958: 1493-1494.

Berkove, Lawrence I. "Refuge in the Valley of Dry Bones: Loren Eiseley's Accommodation to Death." CEA Critic 54.1 (1991): 87-97.

Buettner-Janusch, John. Rev. of The Firmament of Time by Loren Eiseley. American Anthropologist 65 (1963): 693-694.

Carlisle, E. Fred. Loren Eiseley: The Development of a Writer. Urbana: U Of Illinois P, 1983.

---. "The Heretical Science of Loren Eiseley." Centennial Review 18 (1974): 354-377.

---. "The Literary Achievement of Loren Eiseley." Prairie Schooner 61.3 (1987): 38-45.

---. "The Poetic Achievement of Loren Eiseley." Prairie Schooner 51.2 (1977): 111-129.

Carrithers, Gale H., Jr. Mumford, Tate, Eiseley: Watchers in the Night. Baton Rouge: Louisiana State UP, 1991.

Christensen, Erleen J. "Loren Eiseley, Student of Time." Prairie Schooner 61.3 (1987): 28-37.

---. Loren Eiseley: Modern Shaman. Diss. U of Kansas, 1984. Ann Arbor: UMI, 1984. 842435.

Christianson, Gale E. Fox at the Wood's Edge: A Biography of Loren Eiseley. New York: Holt, 1990.

Cooke, Michael. "The Hero in Autobiography." Rev. of All the Strange Hours by Loren Eiseley. The Yale Review 65 (1976): 587-593.

Dillard, Annie. Introduction. The Best American Essays 1988. Annie Dillard. Robert Atwan ser. ed. New York: Ticknor, 1988. xiii-xxii.

Deevey, Edward S. "Man and Nature: Retrospect and Prospect." Rev. of The Firmament of Time by Loren Eiseley. The Yale Review 50 (1960): 120-122.

Dobzhansky, Theodosius. Rev. of The Unexpected Universe by Loren Eiseley. American Anthropologist 73 (1971): 305-306.

Dubos, Rene. Rev. of The Invisible Pyramid by Loren Eiseley. Smithsonian Nov. 1970: 70-71.

Gerber, Leslie E. and Margaret McFadden. Loren Eiseley. New York: Frederick Ungar, 1983.

Heidtmann, Peter. "An Artist of Autumn." Prairie Schooner 61.3 (1987): 46-56.

---. Loren Eiseley: a Modern Ishmael. Hamden, Conn.: Archon, 1991.

Howard, Ben. "Loren Eiseley and the State of Grace." Prairie Schooner 61. 3 (1987): 57-59.

---. "Comment: Naturalist, Feminist, Professor." Rev. of The Innocent Assassins by Loren Eiseley. Poetry 126 (1975): 44-46.

MacKaye, William R. Rev. of The Night Country. The Washington Post 14 Dec. 1971: B1.

Prescott, Orville. Rev. of The Immense Journey. The New York Times 27 Dec. 1957: 17.

Schwartz, James M. "Loren Eiseley: The Scientist as Literary Artist." The Georgia Review 31 (1977): 855-871.

Stahlman, William D. "The Questing Mind." Rev. of The Unexpected Universe by Loren Eiseley. Saturday Review 13 Dec. 1969: 38-40.

Whittemore, Reed. "Two Poets." Rev. of Notes of an Alchemist by Loren Eiseley. The New Republic 2 Dec. 1972: 22-23.

Richard Wilbur--Primary Sources

Wilbur, Richard. "'Ash Wednesday'" in "Prefaces: Five Poets on Poems by T. S. Eliot." The Yale Review 78.2 (1989): 215-217.

---. New and Collected Poems. New York: Harcourt, 1988.

---. "On 'Love Calls Us to the things of This World.'" The Contemporary Poet as Artist and Critic: Eight Symposia. Ed. Anthony Ostroff. Boston: Little, 1964. 17-21.

---. "On My Own Work." Responses 115-126.

---. "On Robert Frost's 'The Gum-Gatherer." Responses 185-189.

---. "Poetry and Happiness." Responses 91-114.

---. "Poetry and Landscape." The New Landscape in Art and Science. Ed. Gyorgy Kepes. Chicago: Paul Theobald, 1956.

---. "Poetry's Debt to Poetry." Responses 161-184.

---. "Regarding Places." Responses 152-160.

---. Responses: Prose Pieces 1953-1976. New York: Harcourt, 1976.

---. "Round About a Poem of Housman's." Responses 16-38.

---. "Sumptuous Destitution." Responses 3-15.

---. "The Bottles Become New, Too." Responses 215-223.

Wilbur--Secondary Sources

Beacham, Walton. "Poetry as performance: A Conversation between W. D. Snodgrass and Richard Wilbur." New Virginia Review 1 (1979): 34-57. Rpt. in Butts 205-223.

Benoit, Raymond. "The New American Poetry." Thought 44 (1969): 201-218. Excerpted (201-203, 208-212) and rpt. as "From 'The New American Poetry'" in Salinger 162-168.

Bogan, Christopher and Carl Kaplan. "Interview: Richard Wilbur." The Amherst Student Review 17 March 1975: 4-5, 13-14. Rpt. in Butts146-161.

Brodsky, Joseph. "On Richard Wilbur." Trans. Carl R. Proffer. The American Poetry Review 2 (1972): 52. Rpt. in Salinger 203-206.

Broughton, Irv. "An Interview with Richard Wilbur." Mill Mountain Review 2.2 (1975): 92-109. Rpt. in Butts 125-145.

Bunge, Nancy L. "Richard Wilbur." Finding the Words: Conversations with Writers Who Teach. Athens: Ohio UP, 1985. 171-181. Rpt. in Butts 224-234.

Butts, William. "An Interview with Richard Wilbur." Esprit 4.1 (1988): 1-8. Rpt. in Butts 254-261.

Butts, William, ed. Conversations with Richard Wilbur. Jackson: UP of Mississippi. 1990.

Cooke, Michael G. Rev. of The Mind-Reader, by Richard Wilbur. The Georgia Review 31 (1977): 718-729.

"Craft Interview with Richard Wilbur." The New York Quarterly 12 (1972): 16-36. Rpt. in Butts 86-101.

Cummins, Paul F. Richard Wilbur: A Critical Essay. Grand Rapids: William B. Erdmans,1971.

---. "Questionnaire to Mr. Wilbur." "Difficult Balance." Diss. U of Southern California, 1967: 229-33. Rpt. in Butts 42-55.

Dacey, Phillip. "An Interview with Richard Wilbur." Crazy Horse 15 (1974): 37-44. Rpt. in Butts 115-124.

Farrell, John P. "The Beautiful Changes in Richard Wilbur's Poetry." Contemporary Literature 12 (1971): 74-84. Rpt. in Salinger 187-202.

Faverty, Frederic E. ""Well-Open Eyes': or, the Poetry of Richard Wilbur." Poets In Progress: Critical Prefaces to Ten Contemporary Americans. Ed. Edward Hungerford. N.p.: Northwestern, 1962. 59-72.

Fiedler, Leslie A. "A Kind of Solution: The Situation of Poetry Now." Kenyon Review 26 (1964): 54-79.

Fountain, Gary and Peter Brazeau. Remembering Elizabeth Bishop: An Oral Biography. Amherst: U Massachusetts P, 1994.

Frank, Robert and Stephen Mitchell. "Richard Wilbur: An Interview." The Amherst Literary Magazine 10.2 (1964): 54-72. Rpt. in Butts 17-35.

Gerald, Gregory Fitz and William Heyen. "The Window of Art: A Conversation with Richard Wilbur." Modern Poetry Studies 1.2 (1970): 57-67. Rpt. in Butts 56-65.

Gery, John. "The Sensible Emptiness in Three Poems by Richard Wilbur." Essays in Literature 16.1 (1989): 113-126.

Harris, Peter. "Forty Years of Richard Wilbur: The Loving Work of an Equilibrist." Virginia Quarterly Review 66.3 (1990): 412-425.

Hecht, Anthony, "The Achievement of Richard Wilbur: Master of Metaphor." The New Republic 16 May 1988: 23-32.

---. "The Motions of the Mind." The Times Literary Supplement 20 May 1977: 602. Rpt. in Salinger 123-131.

Heyen, William. "On Richard Wilbur." Southern Review ns 9.3 (1973): 617-634.

Hill, Donald L. Richard Wilbur. Twayne's United States Authors Ser. 117. New York: Twayne, 1967.

Holmes, Theodore. "Wilbur's New Book--Two Views: I. A Prophet Without a Prophecy." Rev. of Advice to a Prophet and Other Poems by Richard Wilbur. Poetry 100 (1962): 37-39. Rpt. in Salinger 72-75.

Honig, Edwin. "A Conversation with Richard Wilbur." Modern Language Notes 91 (1976): 1084-98. Rpt. in Butts 162-177.

Hougen, John Byron. The Poetry of Richard Wilbur: Ecstasy within Discipline. Diss. U of Virginia, 1988. Ann Arbor UMI, 1988. 8914614.

Hutton, Joan. "Richard Wilbur." Transatlantic Review 29 (1968): 58-67. Rpt. in Butts 46-55.

Jackson, Richard. "Richard Wilbur, 1979." Acts of Mind: Conversations with Contemporary Poets. University, AL: U of Alabama P, 1983. 140-145.

James, Clive. "As a Matter of Tact." Rev. of Responses: Prose Pieces 1953-1976 by Richard Wilbur. New Statesman 17 June 1977: 815-816.

Jarrell, Randall. "A View of Three Poets." Rev. of Ceremony and Other Poems by Richard Wilbur. Partisan Review 18 1951): 691-700. Excerpted and rpt. as "From 'A View of Three Poets'" in Salinger 46-49.

---. "Fifty Years of American Poetry." Prairie Schooner 37 (1963): 1-27. Rpt. as "From 'Fifty Years of American Poetry'" in Salinger 85.

Jensen, Enjer J. "Encounters with Experience: The Poems of Richard Wilbur." New England Review 2 (1980): 594-613. Rpt. in Salinger 243-264.

Johnson, Kenneth. "Virtues in Style, Defect in Content: The Poetry of Richard Wilbur." The Fifties: Fiction, Poetry, Drama. Ed. Warren French. DeLand, Fla.: Everett-Edwards, 1970. 209-216.

Kinzie, Mary. "The Cheshire Smile: On Richard Wilbur." The American Poetry Review 6 (1977): 17-20.

Kunitz, Stanley and Vineta Colby, ed. Twentieth Century Authors, First Supplement: A Biographical Dictionary of Modern Literature. New York: 1955.

Langbaum, Robert. "The New Nature Poetry." American Scholar 28 (1959): 323-340.

Leithauser, Brad. "Reconsideration: Richard Wilbur--America's Master of Formal Verse." The New Republic 24 March 1982: 28-31. Rev. and rpt. as "Richard Wilbur at Sixty" in Salinger 282-291.

Levey, Virginia. "The World of Objects in Richard Wilbur's Poetry." Publications of the Arkansas Philological Association 7 (1981): 41-51.

Littler, Frank. "Wilbur's 'Love Calls Us to Things of This World.'" Explicator 40.3 (1982): 53-55.

McConnell, Frank. "Reconsideration: The Poetry of Richard Wilbur." The New Republic 29 July 1978: 37-39.

McKnight, Paul and Gary Houston. "An Interview with Richard Wilbur." Thistle 9.1 (1966): 22-27. Rpt. in Butts 36-41.

Michelson, Bruce. Wilbur's Poetry: Music in a Scattering Time. Amherst: U of Massachusetts P, 1991.

Monteiro, George. "Redemption Through Nature: a Recurring Theme in Thoreau, Frost, and Richard Wilbur." American Quarterly 20 (1968): 795-809.

Payne, Marjory Scheidt. "Giver of due regard": The Religious Vision of Richard Wilbur. Diss. U of Rochester, 1988. Ann Arbor: UMI, 8907480.

Plutzik, Hyam. "Recent Poetry." Rev. of Things of This World by Richard Wilbur. The Yale Review 46 (1956): 295-96. Rpt. in Salinger 66-68.

Poet-to-Poet: A Conversation between Richard Wilbur and Linda Pastan. Sponsored by the Howard County Poetry and Literature Society. Cable 8 TV Studio of Howard Community College. Columbia, MD, Fall 1986. Rpt. in Butts 235-246.

Riebetanz, John. "What Love Sees: Poetry and Vision in Richard Wilbur." Modern Poetry Studies 11.1-2 (1982): 60-85.

Salinger, Wendy. Introduction. Richard Wilbur's Creation. Ann Arbor: U of Michigan P, 1983. 1-26.

---, ed. Richard Wilbur's Creation. Ann Arbor: U of Michigan P, 1983.

Sayre, Robert F. "A Case for Richard Wilbur as Nature Poet." *Moderna Spraak* 61 (1967): 114-122. Rpt. in Sayre 153-161.

Scott, Nathan A., Jr. "The Poetry of Richard Wilbur: "The Splendor of Mere Being.'" Christianity and Literature 39.1 (1989): 7-33.

Shaw, Robert B. "Richard Wilbur's World." 5.2 Parnassus: Poetry in Review (1977): 175-185.

Stitt, Peter, Ellessa Clay High, and Helen McCloy Ellison. "The Art of Poetry: Richard Wilbur." The Paris Review 72 (1977): 68-105. Rpt. in Butts 178-204.

Stitt, Peter. The World's Hieroglyphic Beauty: Five American Poets. Athens: U of Georgia P, 1985.

Woodard, Charles R. "'Happiest Intellection': The Mind of Richard Wilbur." Notes on American Literature 2 (1977): item 7. Rpt. in Salinger 229-231.

---. "Richard Wilbur's Critical Condition." Contemporary Poetry: A Journal of Criticism 2 (1977): 16-24. Rpt. in Salinger 221-228.

Other Works Cited

Anesaki, Masaharu. "Japanese Folklore." The Mythology of All Races. Ed. Canon John Arnott MacCulloch and George Foot Moore. 13 vols. Boston: Marshall Jones, 1928. 3: 338-345.

Armitage, Angus. Sun, Stand Thou Still: The Life and Work of Copernicus the Astronmer. New York: Henry Schuman, 1947.

Attwater, Donald. The Penguin Dictionary of Saints. 2nd ed. Rev. by Catherine Rachel John. 1965. Harmondsworth, Eng.: Penguin, 1983.

Auden, W. H. "Balaam and His Ass." The Dyer's Hand and Other Essays. New York: Vintage-Random, 1962. 107-145.

Augustine. Confessions. Trans. R. S. Pine-Coffin. Middlesex, Eng.: Penguin, 1961.

Augustine. The City of God. Trans. Marcus Dods. The Essential Augustine. Ed. Vernon J. Bourke. Indianapolis: Hackett, 1974.

Barbour, Ian. Myths, Models and Paradigms: A Comparative Study in Science and Religion. New York: Harper, 1974.

Barnes, Michael H. In the Presence of Mystery: An Introduction to the Story of Human Religiousness. Rev ed. Mystic, CT: Twenty-Third Publications, 1990.

Barrett, William. Death of the Soul: From Descartes to the Computer. Garden City, NY: Anchor-Doubleday,1987.

---. Irrational Man: A Study in Existential Philosophy. Garden City, NY: Anchor-Doubleday, 1958.

Basham, J. A. "Photosynthesis." Encyclopedia Britannica. 1977 ed.

Bede. "The Conversion of King Edwin." The Ecclesiatical History of the English Nation. Trans. J. A. Giles. The Literature of England: An Anthology and a History From the Beginnings to the Romantic Movement. Eds. George K. Anderson and William E. Buckler. 5th ed. 2 vols. Glenview, IL: Scott, 1958. 74-76.

Bellah, Robert. Beyond Belief: Essays on Religion in a Post-Traditionalist World. Berkeley: U of California P, 1970.

Berkeley, George. Three Dialogues betweein Hylas and Philonous. Ed. Robert Merrihew Adams. Indianapolis: Hackett, 1979.

Breslin, James E. B. From Modern to Contemporary: American Poetry, 1945-1965. Chicago: U of Chicago P, 1984.

Bronowski, J. A Sense of the Future: Essays in Natural Philsophy. Eds. Piero E. Ariotti and Rita Bronowski. Cambridge: MIT P,1977.

Brooke, John Hedley. Science and Religion: Some Historical Perspectives. Cambridge: Cambridge UP, 1991.

Buber, Martin. I and Thou. Trans. Walter Kaufmann. New York: Scribner's. 1970.

Buckley, Vincent. Poetry and the Sacred. New York: Barnes & Noble, 1968.

Cambon, Glauco. Recent American Poetry. Minneapolis: U of Minnesota, 1962.

Capra, Fritjof. The Tao of Physics: An Exploration of the Parallels Between Modern Physics and Eastern Mysticism. 1975. Boston: Shambhala, 1991.

Carroll, Lewis. Alice's Adventures in Wonderland and Through the Looking-Glass. Engravings by John Tenniel. 1954. London: J. M. Dent, 1981.

Chappell, Fred. "Can Science Search Out the Soul?" Rev. of The Astonishing Hypothesis: The Scientific Search for the Soul by Francis Crick. News and Record 24 April 1994: F5.

Clemoes, Peter. "*Mens absentia cogitans* in 'The Seafarer' and 'The Wanderer.'" Medieval Literature and Civilization: Studies in Memory of G. N. Garmonsway. Ed. D. A. Pearsall and R. A. Waldron. London: Athlone P, 1969. 62-77.

Cobb, John B., Jr. and David Ray Griffin. Process Theology: An Introductory Exposition. Philadelphia: Westminster P, 1976.

Coleridge, Samuel Taylor. *Biographia Literaria* or Biographical Sketches of My Literary Life and Opinions. Ed. George Watson. 1975. London: Everyman, 1991.

---. The Rime of the Ancient Mariner. English Romantic Writers. Ed. David Perkins. New York: Harcourt, 1967. 405-413.

Crick, Francis. The Astonishing Hypothesis: The Scientific Search for the Soul. New York: Scribner's, 1994.

Crossley-Holland, Kevin. The Norse Myths. New York: Pantheon, 1980.

Dante Alighieri. The Divine Comedy of Dante Alighieri: Paradiso. Trans. Allen Mandelbaum. Illus. Bary Moser. New York: Bantam. 1986.

De Chardin, Pierre Teilhard. The Phenomenon of Man. 1955. New York: Harper, 1965.

Dennett, Daniel C. Consciousness Explained. Illus. Paul Weiner. Boston: Little, 1991.

Dillard, Annie. Pilgrim at Tinker Creek. New York: Harper's Magazine P, 1974.

Dibbley, Dale Corey. From Achilles' Heel to Zeuss's Shield. New York: Fawcett Columbine,1993.

Drabble, Margaret, ed. The Oxford Companion to English Literature. 5th ed. Oxford: Oxford UP, 1985.

Eddington, Arthur Stanley. Science and the Unseen World. New York: MacMillan, 1930.

Edelman, Gerald M. Bright Air, Brilliant Fire: On the Matter of the Mind. New York: BasicBooks-Harper, 1992.

Einstein, Albert. "Living Philosophies: Albert Einstein." Living Philosophies. New York: Simon, 1931.

---. Out of My Later Years. New York: Philosophical Library, 1950.

Eliade, Mircea. The Sacred and the Profane: The Nature of Religion. Trans. Willard R. Trask. 1957. New York: Harper, 1959.

Ellmann, Richard and Robert O'Clair, eds. The Norton Anthology of Modern Poetry. New York: W. W. Norton, 1973.

Emerson, Ralph Waldo. Essays by Ralph Waldo Emerson: First and Second Series Complete in One Volume. New York: Perennial-Harper, 1926.

---. The Letters of Ralph Waldo Emerson. Ed. Ralph L. Rusk. 6 vols. New York: Columbia UP, 1939.

Falck, Colin. Myth, Truth and Literature: Towards a True Post-Modernism. 1989. Cambridge: Cambridge UP, 1991.

Floyd, John Alex, Jr. et al., eds. Southern Living Gardening Trees & Shrubs, Ground Covers, Vines. Birmingham, AL: Oxmoor House, 1980.

Frost, Robert. Complete Poems of Robert Frost. 1962. New York: Holt, 1968.

Gleick, James. Chaos: Making a New Science. New York: Penguin, 1987.

Greenfield, Stnley B. A Critical History of Old English Literature. 1965. New York: New York UP, 1968.

Hamilton, Edith. Mythology. Illus. Steele Savage. New York: Mentor-New American, 1940.

Hardy, Thomas. "The Darkling Thrush." The Norton Anthology of Modern Poetry. Eds. Richard Ellmann and Robert O'Clair. New York: W. W. Norton, 1973. 50.

Harth, Erich. The Creative Loop: How the Brain Makes a Mind. New York: William Patrick-Addison-Wesley, 1993.

Hawking, Stephen W. A Brief History of Time: From the Big Bang to Black Holes. Illus. Ron Miller. New York: Bantam, 1988.

Heidegger, Martin. Being and Time. Trans. John Macquarrie & Edward Robinson. San Francisco: Harper, 1962.

---. Poetry, Language, Thought. Trans. Albert Hofstadter. New York: Perennial-Harper, 1971.

Holderlin, Friedrich. "Bread and Wine." Friedrich Holderlin, Eduard Morike: Selected Poems. Trans. Christopher Middleton. Chicago: U of Chicago P, 1972.

Holman, C. Hugh and William Harmon. A Handbook to Literature. 5th ed. New York: Macmillan, 1986.

Homer. The Illiad. Trans. Richmond Lattimore. Chicago: Phoenix-U of Chicago P, 1951.

---. The Odyssey of Homer. Trans. S. H. Butcher and A. Lang. New York: Modern Library, 1950.

Huizinga, J. Homo Ludens: A Study of the Play-Element in Culture. Boston: Beacon, 1950.

Huxley, Sir Julian. Introduction. The Phenomenon of Man. By Pierre Teilhard De Chardin. 1955. New York: Harper, 1965. 11-30.

---. Knowledge, Morality, and Destiny. New York: Mentor-New American, 1957.

---. Religion without Revelation. New York: Harper, 1957. New York: Harper, 1957.

James, William. The Varieties of Religious Experience: A Study in Human Nature. Ed. Martin E. Marty. New York: 1982.

Janson, H. W. with Dora Jane Janson. History of Art: A Survey of the Major Visual Arts from the Dawn of History to the Present Day. Ed. Milton S. Fox. 1962. Englewood Cliffs, N. J.: Prentice-Hall, 1970.

Jones, W. T. A History of Western Philosophy. 5 vols. 2nd ed. rev. 1952. New York: Harcourt, 1975.

Kant, Immanuel. Critique of Pure Practical Reason. Trans. Carl J. Friedrich. The Philosophy of Kant: Immanuel Kant's Moral and Political Writings. Ed. Carl J. Friedrich, New York: Modern Library,1949. 209-264.

Kaufman, Walter. "I and You: A Prologue." I and Thou. By Martin Buber. Trans. Walter Kaufman. New York: Scribner's, 1970. 9-48.

Kesten, Hermann. Copernicus and His World. Trans. E. B. Ashton and Norbert Guterman. New York: Roy, 1945.

Koestler, Arthur. The Act of Creation. 1964. London: Arkana-Penguin, 1989.

---. The Sleepwalkers: A History of Man's Changing Vision of the Universe. 1959. London: Arkana-Penguin, 1989.

Korn, Jerry, ed., et al. War on the Mississippi: Grant's Vicksburg Campaign. The Civil War. Alexandria: Time-Life, 1985.

Krutch, Joseph Wood. The Measure of Man: On Freedom, Human Values, Survival and the Modern Temper. New York: Grosset and Dunlap, 1954.

Kuhn, Thomas S. The Structure of Scientific Revolutions. International Encyclopedia of Unified Science. Editor-in-Chief Otto Neurath. 2nd ed. Chicago: U of Chicago P, 1970.

Langer, Susanne K. Philosophy in a New Key: A Study in the Symbolism of Reason, Rite , and Art. New York: Mentor-American Library, 1942.

Lawrence, D. H. "Tortoise Gallantry." The Norton Anthology of Modern Poetry. Ed. Richard Ellman and Robert O'Clair. New York: W. W. Norton, 1973. 314-315.

Lefevre, Adam. Grant at Windsor. Dir. Holly Derr. With Mac Rogers. UNC-CH Lab Student Theatre, Chapel Hill, NC. 18 March 1995.

Levey, Steven. "Dr. Edelman's Brain." The New Yorker 2 May 1994: 62-73.

Lucie-Smith, Edward. Introduction. Musee d' Orsay Impressionist and Post-Impressionist Masterpieces. London: *Editions de la Reunion des Musees Nationaux* and Thames and Hudson, 1984.

Marcel, Gabriel. Creative Fidelity. Trans. Robert Rosthal. New York: Farrar, 1964.

Margolioth, H. M. Note. Centuries. By Thomas Traherne. Wilton, Conn.: Morehouse, 1960. v-vii.

Maritain, Jacques. Creative Intuition in Art and Poetry: The A. W. Mellon Lectures in the Fine Arts. 1954. New York: Meridian-New American, 1974.

Mason, Stephen F. Main Currents of Scientific Thought. 1956. Rpt. as A History of the Sciences. Rev. ed. New York: Collier-Macmillan, 1962.

Miers, Earl S. The Web of Victory: Grant at Vicksburg. Baton Rouge: Louisiana State UP, 1955.

Miller, J. Hillis. The Disappearance of God: Five Nineteenth-Century Writers. Cambridge: Harvard UP, 1965.

Nashe, Thomas. "A Litany in Time of Plague." The Literature of England: An Anthology and a History From the Beginnings to the Romantic Movement. Ed. George K. Anderson and William E. Buckler. 2 vols. Atlanta: Scott, 1966.

Nietzsche, Friedrich. The Birth of Tragedy and The Genealogy of Morals. Trans. Francis Golffing. New York: Anchor-Doubleday, 1956.

Ong, Walter J. "Voice as Summons to Belief." Literature and Belief. Ed. M. H. Abrams. New York: Columbia UP, 1958.

Otto, Rudolf. The Idea of the Holy. Trans. John W. Harvey. 1923. Oxford: Oxford UP, 1975.

Pascal, Blaise. Pascal Pensees. Trans. A J. Krailsheimer. Middlesex, Eng.: Penguin, 1966.

Penrose, Roger. Shadows of the Mind: A Search for the Missing Science of Consciousness. Oxford: Oxford UP, 1994.

Poe, Edgar Allan. Eureka: A Prose Poem. Ed. Richard P. Benton. Hartford: Transcendental, 1973.

---. "The Poetic Principle." American Poetry and Prose. Ed. Norman Foerster. Boston: Houghton, 1957. 385-389.

Polyani, Michael. Personal Knowledge: Towards a Post-Critical Philosophy. Chicago: U of Chicago P, 1958.

Richards, I. A. Poetries and Sciences: A Reissue of Science and Poetry (1926, 1935) with Commentary. New York: Norton, 1970.

Roethke, Theodore. "Cuttings." The Norton Anthology of Modern Poetry. Eds. Richard Ellmann and Robert O'Clair. New York: W. W. Norton, 1973. 754.

Rolston, III, Holmes. Science and Religion: A Critical Survey. Philadelphia: Temple UP, 1987.

Rosthal, Robert. Introduction. Creative Fidelity. By Gabriel Marcel. Trans. Robert Rosthal. New York: Farrar, 1964. ix-xxvi.

Santayana, George. Interpretations of Poetry and Religion. New York: Torchbooks-Harper, 1957.

Sayers, Dorothy L. Introduction. The Song of Roland. 1957. New York: Penguin, 1985. 7-44.

---. The Mind of the Maker. New York: Harcourt, 1941.

Scott, Nathan A., Jr. Mirrors of Man in Existentialism. New York: Collins, 1969.

---. The Poetics of Belief: Studies in Coleridge, Arnold, Pater, Santayana, Stevens, and Heidegger. Studies in Religion. Gen. ed. Charles H. Long. Chapel Hill: U of NC P, 1985.

Sewell, Elizabeth. The Orphic Voice: Poetry and Natural History. 1960. New York: Harper Torchbooks, 1971.

Shlain, Leonard. Art and Physics: Parallel Visions in Space, Time, and Light. New York: Quill-William Morrow, 1991.

Smith, Gene. Lee and Grant: a Dual Biography. New York: McGraw Hill, 1984.

Steiner, George. Real Presences. Chicago: Chicago UP, 1989.

Stevens, Wallace. The Collected Poems. New York: Vintage-Random, 1982.

---. The Necessary Angel: Essays on Reality and the Imagination. New York: Vintage-Random, 1951.

---. The Palm at the End of the Mind: Selected Poems and a Play. Ed. Holly Stevens. New York: Vintage-Random, 1972.

Stevenson, Robert Louis. Dr. Jekyll and Mr. Hyde. New York: Pocket-Simon, 1972.

Stoppard, Tom. Arcadia. London: Faber,1993.

Tagore, Rabindranath. "The Four Stages of Life." The World Treasury of Modern Religious Thought. Ed. Jaroslav Pelikan. World Treasuries. Gen. ed. Clifton Fadiman. Boston: Little, 1990. 149-157.

Tarnas, Richard. The Passion of the Western Mind: Understanding the Ideas That Have Shaped Our World View. New York: Ballantine, 1991.

The Compact Edition of the Oxford English Dictionary. 2 vols. New York: Oxford UP, 1971.

The Oxford Dictionary of Quotations. 3rd ed. 1941. Oxford: Oxford UP, 1979.

Traherne, Thomas. Centuries. Wilton, CT: Morehouse, 1960.

Webster's Third New International Dicitonary of the English Language Unabridged with Seven Language Dictionary. 3 vols. Chicago: Encyclopedia Britannica/Merriam-Webster, 1976.

White, Raymond E. "North Star." The World Book. 1985 ed.

Whitehead, Alfred North. Science and the Modern World. New York: Free P, 1925.

Whitman, Walt. Preface to Leaves of Grass 1855. The Portable Walt Whitman. Ed. Mark Van Doren. The Viking Portable Library. New York: Viking, 1945.

Williams, William Carlos. "Spring and All." The Norton Anthology of Modern Poetry. Eds. Richard Ellmann and Robert O'Clair. Boston: W. W. Norton, 1973. 290-291.

Wood, James Playstead. The Snark *Was* a Boojum: A Life of Lewis Carroll. Illus. David Levine. New York: Pantheon, 1966.

Wordsworth, William. The Prelude: 1799, 1805, 1850. Eds. Jonathan Wordsworth, M. H. Abrams, Stephen Gill. New York: Norton, 1979.

---. "Lines Composed a Few Miles Above Tintern Abbey, on Revisiting the Banks of the Wye During a Tour. July 13, 1798." English Romantic Writers. Ed. David Perkins. New York: Harcourt, 1967. 209-211.

Yeats, W. B. The Collected Poems of W. B. Yeats. 1940. New York: MacMillan, 1956.

Zajonc, Arthur G. Catching the Light: The Entwined History of Light and Mind. New York: Bantam,1993.

---. "Light and Cognition." Gaia 2 Emergence: The New Science of Becoming. Ed. William Irwin Thompson. Hudson, NY: Lindisfarne P, 1991.